

# THE AMPHIPODA OF SOUTHERN AFRICA

## PART 4

### THE GAMMARIDEA AND CAPRELLIDEA OF THE CAPE PROVINCE EAST OF CAPE AGULHAS

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(With 18 figures)

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## INTRODUCTION

This paper forms the fourth part of a series dealing with the gammaridean and caprellid amphipod fauna of Africa south of 20°S. Parts one to three (Griffiths 1973 and 1974*a* and *b*) have covered southern Moçambique, southern South West Africa and Natal respectively, while the present section deals with the Cape Province east of Cape Agulhas (i.e. from 20°E to 30°E).

A feature of this region is the considerable number of estuaries to be found there, many of which have been investigated by ecological survey teams from the University of Cape Town. However, most of these studies have been cursory and really only Knysna Estuary has been adequately worked on, resulting in a paper on its ecology by Day, Millard & Harrison (1952).

The marine sampling coverage for the eastern Cape, on the other hand, has been relatively thorough, over 700 marine samples being represented in the University of Cape Town collections (compared with 200 from Moçambique, 250 from South West Africa and 350 from Natal). An emphasis on the Cape is equally evident in the works of Stebbing (1908*a*, 1910*a*) and K. H. Barnard (1916, 1925, 1940, 1955) and this increased collecting effort has revealed a comparably larger haul of species (173, compared with 65, 81 and 115 from Moçambique, South West Africa and Natal respectively). At this stage it cannot be definitely stated whether the Cape fauna is richer than that of the other areas,

or whether the increased number of species is merely due to increased collecting effort. However, the amphipod faunas of temperate areas have, in general, been found to be richer than those of more tropical zones.

The dominant ocean current in the eastern Cape is the south-westerly flowing Agulhas Current, the inner margin of which tends to follow the continental shelf. At its centre the current flows at a rate of about three knots, but this decreases rapidly with depth. As the continental shelf widens towards the west the warm Agulhas water is progressively forced further offshore and inshore counter-currents and cold-water upwellings become progressively more important. Thus, while surface temperatures at the core of the Agulhas Current are usually in the range 20–25°C, thermoclines and upwellings mean that bottom temperatures are considerably lower. Over the Agulhas Bank itself a flow of upwelled water from south-east to north-west maintains the bottom temperature at 10–13°C. Slightly higher figures are obtained to the east of the bank, so that at Still Bay temperatures at 50 m fall around 15°C, dropping to 12°C at 200 m. As one progresses east there is a further rise so that at Port Elizabeth the temperature at 50 m averages about 17°C while north of East London a comparable figure would be 18–20°C. It must be stressed that the inshore regime is subject to considerable variation caused by periodic upwellings and counter-current intensities. For example, during periods of strong westerly winds the whole Agulhas Bank region becomes an Atlantic Ocean province, with a consequent drop in surface temperature.

As the collections of the University of Cape Town from the southern and eastern Cape Province fall into a large number of different sections these are discussed briefly below under the categories of collections from the open sea, and those from estuaries. The collecting locations are shown on Figure 1.

## THE COLLECTING STATIONS

### *Collections from the marine environment*

#### *(a) Still Bay shelf transect (SST)*

The samples in this series were collected off Still Bay on 20 to 22 June 1972 and form part of the material for an analysis of benthic distribution being undertaken by Dr J. G. Field of the C.S.I.R. Oceanographic Research Unit, University of Cape Town. The amphipod material derived from this collection has proved particularly diverse and interesting. A total of 66 species was recovered from the 82 samples, which were taken in the form of a transect from 5 to 200 m. These species included eight new to science, as well as a number of new records and rare species. The majority of these new species and new records was recovered from the 200 m station which appears to represent a habitat type not previously adequately sampled, since large numbers of new species from various other groups were also recovered here.

The transect was originally planned to sample an area of shelly sand, but

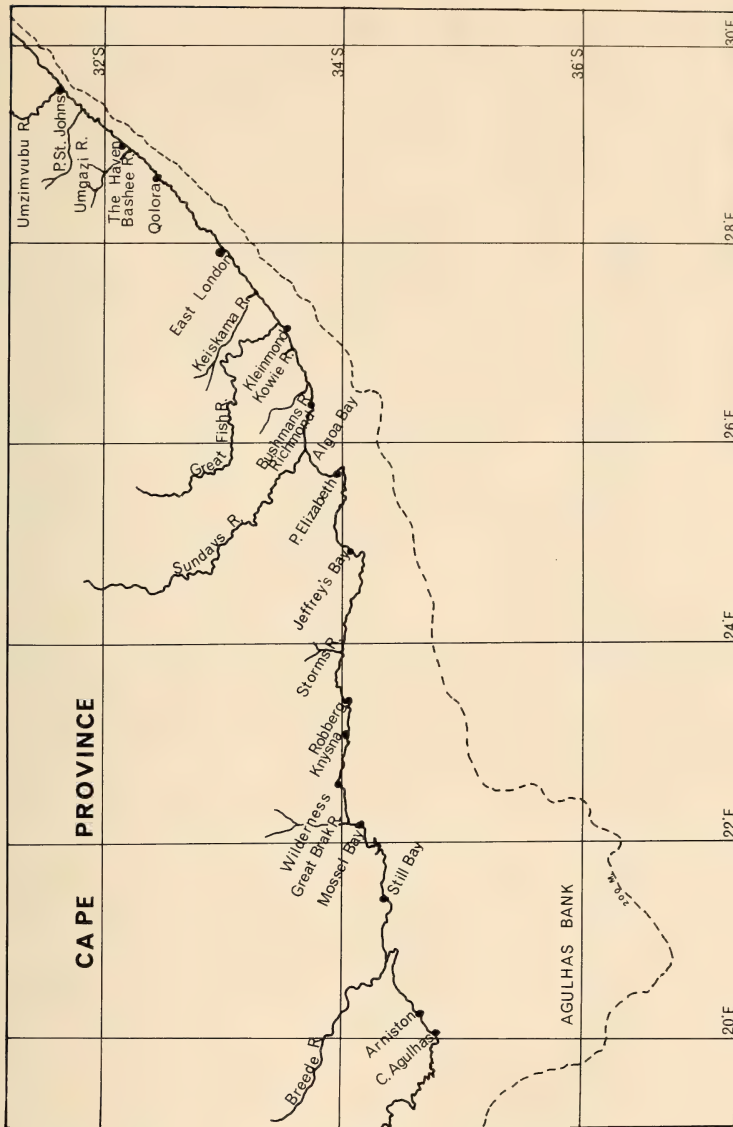


Fig. 1. The eastern Cape Province showing collecting areas referred to in the text.

a band of green mud was found to occupy a region from 50 to 80 m. The sandy area from 5 to 50 m was not heavily populated by amphipods, although *Urothoe pulchella*, *Mandibulophoxus stimpsoni*, *Hippomedon onconotus* and a few other species were reasonably common. The muddy zone from 50 to 80 m was very sparsely populated with just a few *Ampelisca brevicornis* and *Periocolodes longimanus* and an occasional concentration of *Siphonoecetes dellavallei*. In the area deeper than 80 m a great diversity of species was to be found, the 200 m

station being particularly rich. Large *Ampelisca* were a feature of the area, notably *A. fusca*, but also *A. chiltoni* and *A. brevicornis*. *Mandibulophoxus stimpsoni* and *Leucothoe richiardi* were also well represented while the unusual *Concholestes armatus* n. sp. was discovered roaming the surface in old scaphopod shells.

*SST station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>	<i>Depth (m)</i>	<i>Substrate</i>
SST 1-17	20/6/72	35°22'S/22°31'E	200	Rock and sand
SST 18-24	20/6/72	35°06'S/22°15'E	120	Shelly sand
SST 29-37	21/6/72	34°40'S/21°39'E	80	Shelly sand
SST 40-45	21/6/72	34°25'S/21°28'E	50	Green mud
SST 47-57	21/6/72	34°24'S/21°27'E	30	Shelly sand
SST 58-60	21/6/72	34°23'S/21°26'E	10	Shelly sand
SST 61-66	21/6/72	34°23'S/21°26'E	15	Shelly sand
SST 67-73	21/6/72	34°23'S/21°26'E	20	Shelly sand
SST 74-75	22/6/72	34°23'S/21°26'E	20	Shelly sand
SST 76	22/6/72	34°23'S/21°26'E	15	Shelly sand
SST 77	22/6/72	34°22'S/21°26'E	5	Shelly sand
SST 81	22/6/72	34°46'S/20°25'E	81	Green mud

(b) *Algoa Bay dredge (LIZ)*

This code has been allocated to a series of some 40 grab and dredge samples collected in Algoa Bay during April 1954. Eleven of these samples revealed amphipods, 24 species being represented. The only species at all common in the area were *Ampelisca chiltoni*, *Ampelisca diadema*, *Cheiriphotis megacheles* and the ubiquitous *Paramoera capensis*.

*LIZ station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>	<i>Depth (m)</i>	<i>Substrate</i>
LIZ 1	5/4/54	33°55'S/25°37'E	8-10	Mud
LIZ 3	5/4/54	33°56'S/25°40'E	17-18	Sand
LIZ 13	6/4/54	33°58'S/25°38'E	7-8	Sand
LIZ 17	7/4/54	33°58'S/25°40'E	14	Stones
LIZ 19	7/4/54	33°58'S/25°42'E	27	Sand and shells
LIZ 25	11/4/54	34°00'S/25°44'E	39	Sand and shells
LIZ 29	11/4/54	34°00'S/25°42'E	5-7	Rock
LIZ 31	6/4/54	33°57'S/25°38'E	9	Limestone and clay
LIZ 32	6/4/54	33°58'S/25°39'E	9	Stones
LIZ 37	6/4/54	33°58'S/25°39'E	9	Stones
LIZ 40	11/4/54	34°00'S/25°42'E	7	Rock

(c) *Mossel Bay dredge (MB)*

The MB code is carried by a series of 88 dredge samples collected in Mossel Bay during January 1956. The substrate of the bay is predominantly sand, although there are considerable outcrops of rock. Twenty-four amphipod species are recorded from the area. Samples taken from rock showed the most frequently encountered species to be *Ceradocus rubromaculatus* and *Gammaropsis atlantica* as well as *Leucothoe* spp. and *Caprella* spp. Sandy areas contained

numerous *Cheiriphotis megacheles*, *Lysianassa ceratina* and *Ampelisca* spp., while *Paramoera capensis*, the most common species in the bay, was found in both rocky and sandy areas.

MB station data				
Catalogue No.	Date	Location	Depth (m)	Substrate
MB 4	12/1/56	34°09'S/22°07'E	10	Shell, rock
MB 5	12/1/56	34°08'S/22°08'E	21	Fine sand
MB 10	12/1/56	34°04'S/22°13'E	19	Rock
MB 13	12/1/56	34°04'S/22°13'E	19	Rock
MB 16	13/1/56	34°11'S/22°10'E	16	Sand and rock
MB 20	13/1/56	34°08'S/22°07'E	13	Sand, shells, rock
MB 21	13/1/56	34°10'S/22°08'E	8	Sand
MB 23	13/1/56	34°08'S/22°07'E	12,5	Rock
MB 28	13/1/56	34°11'S/22°09'E	19	Rock
MB 32	15/1/56	34°09'S/22°07'E	10	Shelly sand
MB 33	15/1/56	34°08'S/22°07'E	19	Sand
MB 34	15/1/56	34°08'S/22°09'E	31	Sand
MB 37	16/1/56	34°09'S/22°10'E	31	Sand
MB 38	16/1/56	34°10'S/22°07'E	8,5	Sand
MB 40	16/1/56	34°10'S/22°08'E	9	Rock
MB 41	16/1/56	34°10'S/22°08'E	9	Rock
MB 45	17/1/56	34°10'S/22°09'E	17	Sand
MB 46	17/1/56	34°11'S/22°10'E	26	Sand
MB 50	17/1/56	34°11'S/22°09'E	10	Rock
MB 54	17/1/56	34°10'S/22°09'E	14	Rock, sandy patches
MB 57	17/1/56	34°10'S/22°09'E	9	Rock
MB 58	18/1/56	34°04'S/22°13'E	12,5	Rock
MB 59	18/1/56	34°04'S/22°13'E	11,5	Rock
MB 61	18/1/56	34°04'S/22°14'E	17-20	Coarse sand, shell, rock
MB 66	18/1/56	34°04'S/22°13'E	26	Sand and rock
MB 69	19/1/56	34°08'S/22°07'E	13,5	Sand, rocky
MB 70	19/1/56	34°08'S/22°07'E	18	Sand
MB 71	19/1/56	34°08'S/22°07'E	12	Sand
MB 73	19/1/56	34°09'S/22°07'E	12	Rock, sand, shell
MB 75	19/1/56	34°08'S/22°07'E	15,5	Sand
MB 77	20/1/56	34°11'S/22°06'E	24	Rock and sand patches
MB 80	20/1/56	34°05'S/22°11'E	20,5	Fine sand and mud
MB 82	20/1/56	34°10'S/22°09'E	—	(Plankton haul)
MB 84	21/1/56	34°11'S/22°10'E	29	Rock
MB 86	17/1/56	34°11'S/22°09'E	10	Rock
MB 87	17/1/56	34°10'S/22°09'E	14	Rock, sandy patches.

#### (d) Trawler stations (TRA)

Material collected during excursions by members of the Zoology Department of the University of Cape Town on commercial trawlers are grouped under this code. Although there are 44 TRA stations in the area under consideration only three contain amphipods. Five species have been identified from these samples, none of them at all common.

TRA station data				
Catalogue No.	Date	Location	Depth (m)	Substrate
TRA 54	28/11/52	34°40'S/21°35'E	75	Rock
TRA 55	28/11/52	34°40'S/21°35'E	75	Rock
TRA 58	26/11/52	34°28'S/21°45'E	70	Sand and stones

(e) *South coast dredge* (SCD)

Grab and dredge samples collected between 20°E and 30°E along the southern Cape coast, and which do not form part of the specific studies mentioned above, are allocated to the SCD catalogue. To date there are some 400 samples in the series and included in the recorded fauna are 96 species of amphipod. Of these species *Mandibulophoxus stimpsoni* and *Perioculodes longimanus* have been the most commonly found, while other frequently occurring species have been *Ampelisca brevicornis*, *Ampelisca palmata*, *Aora typica*, *Cheiriphotis megacheles*, *Gammaropsis atlantica* and *Photis* and *Urothoe* spp.

SCD station data				
Catalogue No.	Date	Location	Depth (m)	Substrate
SCD 3	18/4/58	34°31'S/24°40'E	102	Rock
SCD 10	19/4/58	34°15'S/25°05'E	11	Rock and shell
SCD 20	26/5/58	34°07'S/23°23'E	46	Rock
SCD 24	26/5/58	34°46'S/23°27'E	110	Rock
SCD 34	21/5/58	33°03'S/27°56'E	57	Sand, shells
SCD 41	19/5/58	32°15'S/28°57'E	47	Rock
SCD 55	20/8/58	34°01'S/25°45'E	46	Rock
SCD 59	19/8/58	33°37'S/26°56'E	46	—
SCD 60	16/8/58	33°02'S/27°56'E	46	Rock
SCD 62	15/8/58	32°17'S/28°54'E	46	Rock
SCD 64	14/8/58	31°37'S/29°36'E	36,5	Mud
SCD 74	16/7/59	32°33'S/28°38'E	55	Sand and mud
SCD 81	16/7/59	32°43'S/28°28'E	58	Stones, shells
SCD 83	17/7/59	27°54'S/33°03'E	51	Sand, shells
SCD 93	17/7/59	33°03'S/27°55'E	27	Rock
SCD 94-96	20/7/59	34°21'S/25°41'E	110	Shell
SCD 99	21/7/59	34°33'S/24°01'E	130	Rock
SCD 100	21/7/59	34°33'S/24°01'E	130	Rock
SCD 102	21/7/59	34°33'S/24°01'E	130	Rock
SCD 103	22/7/59	35°07'S/22°15'E	120	Sand
SCD 104-5	23/7/59	34°33'S/21°28'E	67	Sand, shells
SCD 106	23/7/59	34°35'S/21°10'E	67	Rock
SCD 110	23/7/59	34°35'S/21°11'E	75	Sand, stones
SCD 115	26/11/59	34°54'S/22°12'E	106	Sand, shells
SCD 118	14/2/60	34°24'S/21°46'E	18	Rock
SCD 120	14/2/60	34°33'S/21°52'E	77	Sand
SCD 122	14/2/60	34°40'S/22°00'E	93	Sand
SCD 124	3/6/60	34°26'S/21°48'E	67	Mud
SCD 127-8	3/6/60	34°37'S/21°56'E	87	Sand
SCD 131	3/6/60	34°48'S/22°06'E	100	Sand
SCD 135	26/11/59	34°29'S/21°49'E	73	Mud
SCD 138	28/8/60	34°35'S/21°56'E	77	Shells
SCD 141	28/8/60	34°46'S/22°05'E	93	Sand
SCD 146	28/8/60	34°46'S/22°05'E	93	Sand
SCD 148	28/8/60	34°59'S/22°18'E	106	Sand
SCD 151	2/6/60	34°55'S/21°26'E	91	—
SCD 159	25/11/60	34°03'S/25°59'E	84	Rock
SCD 160	25/11/60	34°03'S/25°59'E	84	Rock
SCD 172	24/11/60	33°58'S/25°41'E	4-11	Rock
SCD 179	24/11/60	33°58'S/25°41'E	4-11	Rock
SCD 181	30/11/60	34°20'S/23°31'E	110	Sand
SCD 184	25/11/60	34°23'S/26°01'E	137	Sand, shells

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>	<i>Depth (m)</i>	<i>Substrate</i>
SCD 185	25/11/60	34°13'S/26°04'E	124	Sand
SCD 188	30/11/60	34°10'S/23°32'E	97	Mud
SCD 189	29/11/60	34°05'S/23°23'E	10	Sand
SCD 192-3	29/11/60	34°04'S/23°25'E	47	Mud
SCD 194	29/11/60	34°04'S/23°25'E	43	Sand
SCD 198	29/11/60	34°07'S/23°31'E	79	Sand
SCD 199	30/11/60	34°10'S/23°32'E	97	Mud
SCD 202	29/11/60	34°05'S/23°23'E	10	Sand
SCD 204	30/11/60	34°51'S/23°41'E	183	Sand
SCD 208	25/11/60	34°23'S/26°01'E	137	Sand, shells
SCD 211	24/11/60	33°58'S/25°42'E	26	Sand, shells
SCD 216	25/11/60	34°03'S/25°58'E	78	Sand, shells
SCD 219	29/11/60	34°02'S/23°28'E	49	Rock
SCD 222	25/11/60	34°13'S/26°04'E	124	Sand
SCD 225	30/11/60	34°20'S/23°31'E	112	Rock
SCD 227	29/11/60	34°07'S/23°31'E	79	Sand
SCD 228	5/12/60	35°43'S/20°31'E	143	Mud
SCD 230	29/11/60	34°04'S/23°25'E	43	Sand
SCD 232	4/12/60	36°28'S/21°11'E	183	Sand
SCD 235-7	30/11/60	34°51'S/23°41'E	183	Sand
SCD 244-5	29/11/60	34°02'S/23°28'E	49	Rock
SCD 248	29/11/60	34°04'S/23°25'E	45	Mud
SCD 249	30/11/60	34°48'S/23°39'E	148	Rock
SCD 253	16/7/61	33°07'S/28°01'E	88	Rock
SCD 257	14/7/61	33°53'S/25°42'E	32	Sand
SCD 262	14/7/61	33°48'S/25°47'E	27	Rock
SCD 267	16/7/61	33°02'S/27°56'E	55	Sand, rock
SCD 269	19/7/61	34°23'S/25°54'E	182	Sand, shells
SCD 273	19/7/61	34°23'S/25°54'E	182	Sand, shells
SCD 276	14/7/61	33°53'S/25°42'E	32	Sand
SCD 278	16/7/61	33°02'S/27°56'E	55	Sand, rock
SCD 280	16/7/61	33°09'S/28°05'E	274	Rock
SCD 282-3	11/2/62	34°04'S/23°23'E	22	Sand, shells
SCD 285	6/2/62	33°01'S/27°55'E	7	Sand
SCD 286	6/2/62	33°01'S/27°55'E	7	Sand
SCD 287	11/2/62	34°04'S/23°23'E	22	Sand, shells
SCD 288	6/2/62	33°04'S/27°57'E	84	Shells
SCD 295	6/2/62	33°04'S/27°57'E	84	Shells
SCD 300	6/2/62	33°09'S/28°02'E	84	—
SCD 302	6/2/62	33°39'S/27°15'E	88	Sand
SCD 304	8/2/62	34°00'S/25°53'E	46	Rock
SCD 308	8/2/62	34°00'S/25°53'E	46	Rock
SCD 310	9/2/62	33°59'S/25°51'E	50	Mud
SCD 311	9/2/62	33°59'S/25°51'E	50	Mud
SCD 312	9/2/62	33°58'S/25°47'E	48	Sand
SCD 315	9/2/62	33°58'S/25°47'E	48	Sand
SCD 319	9/2/62	34°15'S/25°50'E	108	Sand, rock
SCD 321	9/2/62	34°15'S/25°50'E	108	Sand, rock
SCD 324	9/2/62	34°27'S/25°57'E	172	Sand
SCD 326	9/2/62	34°27'S/25°57'E	172	Sand
SCD 328	10/2/62	34°43'S/25°40'E	—	(Glass buoy)
SCD 329	11/2/62	34°04'S/23°23'E	22	Shell
SCD 332	11/2/62	34°03'S/23°23'E	11-18	Sand
SCD 338	11/2/62	34°02'S/23°27'E	42	Mud
SCD 339	11/2/62	34°02'S/23°27'E	42	Mud
SCD 342	11/2/62	34°39'S/23°41'E	121	Shell, sand
SCD 343	11/2/62	34°39'S/23°41'E	121	Sand, shells

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>	<i>Depth (m)</i>	<i>Substrate</i>
SCD 345	12/2/62	34°16'S/22°17'E	73	Sand, mud
SCD 347	12/2/62	34°10'S/22°15'E	54	Mud
SCD 348	12/2/62	34°09'S/22°10'E	36	Sand
SCD 349	12/2/62	34°09'S/22°09'E	18	Sand
SCD 350	13/2/62	34°28'S/21°50'E	73	Sand
SCD 352	16/4/62	34°25'S/25°56'E	210	Mud, shells
SCD 353	6/2/62	33°04'S/27°57'E	84	Sand, shells
SCD 356	6/11/62	36°01'S/19°45'E	300	Sand, mud
SCD 359	19/11/62	34°48'S/22°51'E	120	—
SCD 366	2/12/62	33°50'S/25°47'E	36	Sand, rock
SCD 368	2/12/62	33°50'S/25°47'E	36	Sand
SCD 370	4/12/62	33°59'S/25°45'E	44	Sand
SCD 373	4/12/62	33°59'S/25°51'E	36-54	Sand, shells
SCD 374	4/12/62	33°59'S/25°51'E	54	Sand, shells
SCD 376	4/12/62	33°53'S/25°49'E	44	Sand
SCD 379	5/12/62	33°53'S/25°48'E	44	Sand
SCD 381	5/12/62	33°53'S/25°48'E	44	Sand
SCD 383	5/12/62	33°52'S/25°38'E	7	Sand
SCD 384	5/12/62	33°52'S/25°38'E	7	Sand
SCD 388	8/12/62	34°04'S/23°23'E	46	Rock
SCD 391	8/12/62	34°05'S/23°23'E	11	Sand
SCD 392	9/12/62	35°08'S/22°02'E	125	Sand, shells

(f) *Shore stations*

The collections falling into this group are the earliest made by the University of Cape Town Ecological Survey and were intended to reveal zonation of the intertidal fauna around the South African coast. The various collections are denoted by the following catalogue codes (most of the stations were visited only once, but where material was collected on subsequent visits this is indicated by doubling the code letter for second visits and tripling it in the case of third visits).

<i>Catalogue code</i>	<i>Location</i>	<i>Map reference</i>
J	Port St. Johns	31°38'S/29°33'E
H	The Haven	32°14'S/28°55'E
Q	Qolora	32°38'S/28°26'E
L, LL, LLL	East London	33°02'S/27°54'E
X	Kleinmont	33°33'S/27°04'E
K	Kowie	33°36'S/26°54'E
Y	Richmond	33°44'S/26°35'E
E	Port Elizabeth	33°58'S/25°38'E
Z, ZZ	Jeffreys Bay	34°05'S/24°55'E
T	Storms River	34°02'S/23°54'E
R, RR	Robberg	34°05'S/23°22'E
KN, KKN	Knysna	34°05'S/23°04'E
V, VV	Mossel Bay shore	34°11'S/22°09'E
S, SS	Still Bay shore	34°23'S/21°26'E
AR	Arniston	34°41'S/20°14'E
AG	Cape Agulhas	34°50'S/20°10'E

Amphipod records at these locations are purely of a presence-absence type, since the original purpose of the collections was to give an indication of distribution.

Species most frequently encountered intertidally in this area are *Ceradocus rubromaculatus*, *Hyale grandicornis*, *Jassa falcata*, *Lysianassa ceratina* and *Paramoera capensis*, which were found at virtually all the collecting stations. A number of species appear to be restricted to the intertidal zone and have yet to be found sublittorally. These include *Ampithoe africana*, *Elasmopus pecteniscrus*, *Palinotus natalensis*, *Temnophlias capensis* and *Hyale* and *Talorchestia* spp.

### *Collections from estuaries*

#### (a) *Estuaries near Port St. Johns (STJ)*

The largest of the rivers in this area is the Umzimvubu, which enters the sea at the town of Port St. Johns. At the time of sampling (1950) the estuary was muddy but became sandy near the mouth. Heavy silting had restricted the fauna but *Grandidierella bonnieroides* and *G. chelata* were abundant among stones near the mouth while *G. lingorum* was dominant further upstream. *Melita zeylanica* and *Orchestia rectipalma* were also to be found on the mud flats, while *Talorchestia* and *Orchestia* spp. occupied the driftline. *Urothoe pulchella* was also recovered, but was restricted to clean sand near the mouth.

Just south of the town of Port St. Johns lie two minor estuaries known as the Eastern and Western Estuaries. Here again muddy zones were occupied by such typical estuarine species as *Melita zeylanica*, *Corophium triaenonyx* and *Grandidierella* spp. while *Urothoe pulchella* was to be found in clean sand.

The Umgazi Estuary, a few kilometres further south, was also sampled. Here again the fauna conformed to the pattern typical of the area with *Melita zeylanica*, *Corophium triaenonyx* and *Grandidierella* spp. giving way to *Afrochiltonia capensis* further upstream.

A brief exploratory visit to the Umgazana River 6 km south of the Umgazi revealed a population of *Orchestia rectipalma* living amongst algae on the pneumatophores of mangroves.

#### *STJ station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
STJ 5	17/1/50	Drift line, Umzimvubu R. mouth
STJ 6	17/1/50	Intertidal mud, Umzimvubu R. mouth
STJ 7	17/1/50	Rocks, Umzimvubu R. mouth
STJ 8	17/1/50	Mud sievings, Umzimvubu R. mouth
STJ 14	18/1/50	Clean sand, Umzimvubu R. mouth
STJ 15	18/1/50	Clean sand, Umzimvubu R. mouth
STJ 16	18/1/50	Western Estuary
STJ 17	18/1/50	Mouth of Eastern Estuary
STJ 18	18/1/50	Mud bank, 2 km up Umzimvubu R.
STJ 24	19/1/50	Netting, 2 km up Umgazi R.
STJ 26	19/1/50	Muddy sand, 2 km up Umgazi R.
STJ 27	19/1/50	Under stones, Umgazi R. mouth
STJ 28	19/1/50	Mangrove roots, Umgazana R.
STJ 29	19/1/50	Sandy beach, Umgazi R. mouth
STJ 31	20/1/50	Decaying wood, Western Estuary
STJ 32	20/1/50	Weeds and stones, Western Estuary

(b) *Estuaries near The Haven hotel (HAV)*

Three estuaries in the vicinity of The Haven were briefly visited by a party of biologists from the University of Cape Town in January 1950.

The Bashee River winds across a narrow flood plain bordered by steep wooded hills and then widens into a lagoon before entering the sea between sand dunes. The area near the mouth is predominantly sandy but there are occasional rocky outcrops, further upstream the sand is replaced by mud and there is a dense growth of reeds and patches of mangroves. The muddy zones were dominated by *Grandidierella lignorum* while the clean sand near the mouth was occupied by *Urothoe pulchella*. *Orchestia ancheidos* occurred along the drift line.

Blind Lagoon is a small, almost permanently closed estuary just below the hotel. At the seaward end the bottom is sand but this is replaced upstream by mud which forms the bottom of the rest of the lagoon except the head, where there are outcrops of rock. The body of the estuary was well colonized by seven species of amphipod, all typical estuarine forms. Most common of these was *Grandidierella chelata* which was originally described from specimens collected here.

The Mpanyana River Estuary consists of a large lagoon surrounded by steep wooded banks and flowing into the sea through a narrow sandy channel. At the time of sampling the depth of the lagoon was less than 30 cm and the bottom graduated from sand at the seaward end through mud to stones at the head. Near the outlet *Corophium triaenonyx*, *Grandidierella lignorum* and *Urothoe pulchella* were common while further upstream they were replaced by *Melita zeylanica* and *Orchestia rectipalma*.

*HAV station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
HAV 3	12/1/50	Outlet of Mpanyana R.
HAV 5	13/1/50	Sand, Blind Lagoon
HAV 7	13/1/50	D-netting, Blind Lagoon
HAV 8	13/1/50	Submerged log, Blind Lagoon
HAV 9	13/1/50	Rocks, Blind Lagoon
HAV 10	13/1/50	Stones, Blind Lagoon
HAV 13	13/1/50	D-netting, mouth of Bashee R.
HAV 17	14/1/50	Sand, mouth of Mpanyana R.
HAV 18	14/1/50	Stones, 1 km up Mpanyana R.
HAV 20	14/1/50	Netting, 4 km up Bashee R.

(c) *Keiskama Estuary (HAM)*

The Keiskama River is tidal for some 30 km, widening over this distance to some 2 km at Hamburg before entering the sea between headlands at 33°18'S/27°29'E. The river carries a good deal of silt and is shallow and muddy except at the actual mouth where there are rocks and a small area of clean sand. Only five species of amphipod have been recovered from the system. Of these *Orchestia ancheidos* and *Talorchestia capensis* were locally common under

weeds along the driftline, while *Afrochiltonia capensis*, *Melita zeylanica* and *Orchestia rectipalma* were to be found under stones and among weeds throughout the tidal reaches.

*HAM station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
HAM 3	9/1/50	<i>Zostera</i> bed, 1 km from mouth
HAM 4	9/1/50	Driftline, 1 km from mouth
HAM 9	10/1/50	Under stones, Hamburg jetty
HAM 11	10/1/50	Hand netting, 8 km from mouth
HAM 13	11/1/50	Hand netting, 30 km from mouth

(d) *Bushmans River (BMR)*

A brief examination of the Bushmans River Estuary by a team from the Zoology Department of the University of Cape Town in September 1950 revealed five amphipod species. The upper reaches were colonized by a typical fauna of *Grandidierella lignorum*, *Corophium triaenonyx* and *Melita zeylanica* with *Orchestia ancheidos* occurring along the banks. The only unusual record was one of *Ampelisca spinimana* from *Zostera* near the mouth (33°41'S/26°41'E).

*BMR station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
BMR 7	9/9/50	Digging and netting 30 km from mouth
BMR 21	12/9/50	Bank, 24 km from mouth
BMR 23	14/9/50	<i>Zostera</i> bed, 4 km from mouth
BMR 25	14/9/50	Reed bed, 40 km from mouth
BMR 26	15/9/50	<i>Zostera</i> bed, 4 km from mouth

(e) *Sundays River Estuary (SUN)*

The Sundays River flows between vertical mudbanks until about 1 km from the wide shallow mouth (at 33°43'S/25°51'E) where the bottom becomes sandy and the east bank rocky. A survey of the fauna revealed only three amphipod species. Of these *Urothoe pulchella* and *Corophium triaenonyx* were recovered from clean sand near the mouth, while *Melita zeylanica* occurred amongst weeds on the piles of a bridge 8 km upstream.

*SUN station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
SUN 5	7/1/50	D-netting, sand flats at mouth
SUN 6	7/1/50	General collection, 8 km from mouth

(f) *Knysna Estuary (KNY)*

The Knysna Estuary is the richest in southern Africa and has been the subject of a detailed report by Day, Millard & Harrison (1952), who describe the topography and fauna of the system, based upon expeditions to the area between 1947 and 1955. These records have since been supplemented by a further collection taken in 1964.

The Knysna River lies 80 km east of Mossel Bay and widens into a large tidal basin over the last 18 km before entering the sea between two massive headlands at 34°05'S/23°04'E. The estuary is S-shaped and can be regarded as beginning at Charlesford Rapids. Below the rapids lies a stony ford known as 'The Old Drift'. From this point the river winds between marshy banks and beneath the Westford road bridge and then widens abruptly. Around the banks of the muddy upper basin lie the areas of Eastford, Ashford, Belvedere and The Point, while the small Salt River enters the north bank just above the railway bridge. Below the bridge the estuary is over 3 km wide and the channel is fringed by extensive muddy banks covered in *Zostera*. There are two islands in the lower basin, the upper of these, Paarden Island, lies just off Knysna town and on it is situated Thesen's wharf. The lower island, Leisure Island, is connected to the mainland by a causeway crossing boggy salt marshes. Below Leisure Island the lagoon narrows, the channel rapidly deepens and the banks become rocky before entering the heads at Fountain Point.

The flow in the estuary is generally not strong but is sufficient to maintain a salinity gradient. Tidal range at the heads is about 2 m, this range is maintained as far as Westford bridge but falls to 0,3 m at Charlesford. Within the lagoon wave action is negligible despite the vicious waves pounding the heads. Salinity only begins to fall significantly above the rail bridge at which point values of about 30‰ are usual (although there may be significant layering effects). At Westford bridge salinity ranges from 15–25‰ while comparable figures at Charlesford are 3–7‰.

Twenty-seven species of amphipod have been found in Knysna Estuary. Most of these are not typical estuarine forms and are restricted to the area below the railway bridge where salinity remains high. Most widespread in this area are *Cymadusa filosa*, which lives in mucous tubes on *Zostera* plants, and *Paramoera capensis*, *Jassa falcata*, *Corophium triaenonyx* and *Lembos hypacanthus*, which are locally abundant, especially on hard surfaces. Above the railway bridge the amphipod fauna is dominated by estuarine species such as *Grandidierella lignorum*, *Melita zeylanica*, *Orchestia rectipalma* and *Corophium triaenonyx* which all extend as far as Charlesford Rapids.

*KNY station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
KNY 6	15/4/47	Dredge below Paarden Island
KNY 11	16/7/47	Dredge below Paarden Island
KNY 13	15/7/47	Channel west of Leisure Isle
KNY 28	17/7/47	Channel, Leisure Isle
KNY 30	16/7/47	Channel off Thesen's wharf
KNY 42	18/7/47	<i>Zostera</i> bed, Salt River
KNY 43	17/7/47	<i>Zostera</i> bed, Leisure Isle
KNY 50	19/7/47	Westford bridge
KNY 57	20/7/47	Channel at Fountain Point
KNY 81	27/11/47	Belvedere
KNY 101	12/4/49	Below Charlesford
KNY 103	—/4/49	Westford bridge

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
KNY 112	14/4/49	Below Charlesford
KNY 113	14/4/49	<i>Zostera</i> bed, 'The Point'
KNY 114	14/4/49	<i>Zostera</i> bed, Leisure Isle
KNY 122	12/4/49	Westford bridge
KNY 128	14/4/49	Causeway below Woodbourne
KNY 139	12/4/49	<i>Zostera</i> bed, Paarden Island
KNY 157	27/3/50	Seaward side of Leisure Isle
KNY 160	—/11/47	Charlesford Rapids
KNY 162	9/7/50	Rail bridge
KNY 166	9/7/50	Leisure Isle and buoys in channel
KNY 171	9/7/50	Knysna Heads and Fountain Point
KNY 175	10/7/50	Charlesford Rapids
KNY 176	11/7/50	Buoy off Leisure Isle
KNY 179	11/7/50	Sandbank at Brenton
KNY 181	12/7/50	Old drift
KNY 184	12/7/50	Charlesford
KNY 187	13/7/50	Sandbanks, Leisure Isle
KNY 191	14/7/50	Fountain Point
KNY 245	14/2/64	Leisure Isle
KNY 266	14/2/64	Ashford
KNY 272	15/2/64	Rail bridge
KNY 273	15/2/64	Rail bridge
KNY 274	15/2/64	Rail bridge
KNY 283	15/2/64	Rail bridge
KNY 285	15/2/64	Old Drift
KNY 286	15/2/64	Old Drift
KNY 291	15/2/64	Old Drift
KNY 294	14/2/64	Ashford

(g) *Estuaries near the Great Brak River (GBR)*

Three estuaries in the vicinity of the Great Brak River (34°03'S/22°14'E) were visited by the University of Cape Town Zoological Survey team in 1950. The amphipod faunas of the three rivers conform to the pattern typical of the area with *Urothoe pulchella* being found in clean sand near the mouth, while *Corophium triaenonyx*, *Melita zeylanica* and *Grandidierella lignorum* occurred throughout the estuaries. *Talorchestia australis* was found along the drift line.

*GBR station data*

<i>Catalogue No.</i>	<i>Date</i>	<i>Location</i>
GBR 12	30/4/50	Sand at mouth of Great Brak R.
GBR 13	30/4/50	Rocky shore near mouth, Great Brak R.
GBR 16	1/5/50	Sandy bottom of Great Brak R. 1 km from mouth
GBR 23	2/5/50	Above road bridge, Little Brak R.
GBR 24	2/5/50	Head of estuary, Little Brak R.
GBR 37	3/5/50	Weeds at mouth, Great Brak R.
GBR 46	4/5/50	Mouth of Wilderness Estuary

(h) *Breede River Estuary (BRE)*

The Breede River is one of the largest in the Cape Province and has been the subject of two expeditions by the University of Cape Town Ecological Survey. Over the last 50 km of its course the river is tidal and the channel reaches 8 m in depth. The mouth (at 34°25'S/20°53'E) is permanently open with

a sand spit and rocky areas to the north, while the southern shore displays extensive mud and sand flats. At Karools Kraal, situated 7 km from the mouth, the river is narrow and deep and runs between rocky banks interspersed with muddy bays in which there are *Zostera* beds. Below this point the river flows past Dolla se Baai and Green Point to Moddergat where the *Zostera* becomes more extensive. Port Beaufort lies on the north bank about 2 km from the mouth and Low Tide estate is opposite it on the south bank.

From this point to Witsands at the mouth the banks are mostly sand which is locally muddy and covered with a luxuriant growth of *Zostera* at the lower levels. At the mouth itself the south bank consists of wave-washed rocks which display a true marine fauna.

Six species of amphipod have been found in the estuary. Of these *Lysianassa ceratina* occurred only at the mouth and not under estuarine conditions. *Melita zeylanica* and *Orchestia rectipalma* were found throughout the system while *Grandidierella lignorum* was common amongst *Zostera* and *Talorchestia capensis* along the drift line. *Paramoera capensis* was found in the Low Tide estate area.

#### BRE station data

Catalogue No.	Date	Location
BRE 5	1/7/51	Drift line, Port Beaufort
BRE 13	2/7/51	<i>Zostera</i> bed, Moddergat
BRE 18	2/7/51	Drift line, Moddergat
BRE 30	3/7/51	Between Witsands and Port Beaufort
BRE 31	3/7/51	Between Witsands and Port Beaufort
BRE 34	4/7/51	Intertidal rocks, Port Beaufort
BRE 43	4/7/51	Rocks, Karools Kraal
BRE 44	5/7/51	Rocks at mouth
BRE 51	6/7/51	<i>Zostera</i> bed, Green Point
BRE 52	6/7/51	<i>Zostera</i> bed, Moddergat
BRE 55	6/7/51	Karools Kraal
BRE 56	6/7/51	Karools Kraal
BRE 57	6/7/51	Karools Kraal
BRE 71	8/7/51	<i>Zostera</i> bed, Green Point
BRE 77	8/7/51	<i>Zostera</i> bed, Dolla se Baai
BRE 81	8/7/51	From stomach of <i>Lithognathus</i>
BRE 123	5/2/52	Karools Kraal
BRE 128	5/2/52	Under stones, Karools Kraal
BRE 135	6/2/52	Among weeds, Low Tide estate
BRE 144	7/2/52	Rocks at mouth
BRE 146	8/2/52	Karools Kraal

#### SYSTEMATICS

Taxonomy of the Gammaridea followed here is that adopted by J. L. Barnard (1969b) and amended by J. L. Barnard (1970, 1972b), while that of the Caprellidea is modelled on the system proposed by McCain (1970). The arrangement of families, genera within each family and then of species within each genus is alphabetic. Limbs of the pereon are referred to as gnathopods 1 and 2 followed by pereopods 1–5 (while most authors use this system some number the pereopods according to the segments on which they occur, i.e. gnathopods 1 and 2 followed by pereopods 3–7). The analysis presented here is restricted

to species occurring between the drift line and 1 000 m depth, thus estuarine and beach-living species are included, while terrestrial and freshwater forms are excluded, as are those found only at abyssal depths. Holotypes of all new species have been placed in the South African Museum, Cape Town, paratypes have been retained by the University of Cape Town.

For each species at least one reference has been given to what is considered an accurate and, if possible, well-illustrated description. Full synonymies and reference lists may be found through these descriptions. Where diagnoses are provided they are intended to distinguish the species from others in the genus. Generic and familial diagnoses are to be found in J. L. Barnard (1969*b*), or may be located through McCain & Steinberg (1970), in the case of the Caprellidea.

The sample coding system used here is that employed by the University of Cape Town. Each area has its own catalogue indicated by a code of one, two or usually three letters (MB = Mossel Bay, KNY = Knysna, etc.). Each sample from that area is numbered and then each species within the sample is denoted by a letter of the alphabet. Thus each specimen bears a catalogue/sample/species code. For example a sample from Mossel Bay is allocated to the MB catalogue. The first sample in this catalogue is MB 1 and the species from that sample called MB 1A, MB 1B, MB 1C, etc. Where the number of individual specimens is recorded this is indicated by a figure following the code in brackets. Thus MB 1D(6) indicates that six specimens of the species D were collected from station number 1 in the Mossel Bay series.

Authors working in this area in the past frequently gave collecting locations in a somewhat vague manner, e.g. 'Off Cape Agulhas' or '5 miles SE of Cape Infanta'. In presenting these records I have given the latitude/longitude square in which they were made, followed by the depth and the reference from which the records were taken. Thus 33°S/28°E/47m (Stebbing 1917) indicates that Stebbing (1917) records the species in question from the 33°S/28°E area at a depth of 47 m. In some cases material reported on by K. H. Barnard (1951, 1955, 1957) was derived from University of Cape Town collections and in these cases only the University code is given.

#### Suborder GAMMARIDEA

##### Family Acanthonotozomatidae

##### *Cypsiphimidia gibba* K. H. Barnard, 1955

*Cypsiphimidia gibba* K. H. Barnard, 1955: 88, fig. 43.

*Records*: LIZ 40G(1).

*Diagnosis*: Pereon segment 1 swollen, its front margin nearly horizontal such that the head projects vertically downwards; coxa 1 partially concealed by 2; body entirely smooth; gnathopod 1 minutely chelate; gnathopod 2 subchelate; telson short, apically incised.

*Distribution*: The above record is the only one to date.

*Dikwa* n. gen.

*Diagnosis:* Upper lip slightly emarginate; mandible short and broad, with an acute apex, spine row and large molar; lobes of lower lip not incised; palp of maxilla 1 bi-articulate, exceeding outer plate; maxillipedal palp 4-articulate, exceeding outer plate, article 2 of palp not produced; gnathopod 1 chelate; gnathopod 2 simple; telson emarginate.

*Type species:* *Dikwa acrania* n. sp.

*Relationships:* The combination of chelate gnathopod 1 and simple gnathopod 2, together with the unusual mandible, demands the erection of this new genus.

*Dikwa acrania* n. sp.

## Fig. 2

*Description of female* (3 mm): Head greatly reduced, shorter than first pereon segment and consisting largely of a rounded downturned rostrum (Fig. 2A), eyes absent; upper lip emarginate; mandible (Fig. 2C) short and broad with a 3-articulate palp, articles 1 and 2 of palp subequal, their surfaces markedly ridged, article 3 of palp the longest, a row of 14 strong setae along its medial margin, incisor consisting of a sharp projection, lacinia mobilis apically bifurcate, spine row of 13 strong spines, molar fairly large; lower lip not incised; maxilla 1 with bi-articulate palp exceeding outer plate, its distal margin setose, outer plate terminating in eight strong serrate spines, inner plate bearing three terminal setae; maxilliped with 4-articulate palp exceeding outer plate, none of the articles distally produced, outer plate bearing a distal row of eight plumose setae and a few simple setae, inner plate bearing a marginal and three sub-marginal rows of minute pectinations; antennae subequal, slightly shorter than pereon; article 1 of antenna 1 twice as wide as article 2 and as long as 2 and 3 together, apically lobed to partially envelop article 2, flagellum 14-articulate, accessory flagellum absent; flagellum of antenna 2 15-articulate.

Coxae complex (Fig. 2A) but generally very thick and acuminate, coxa 7 very elongate and distally produced into an acute backwardly curved tooth; pereon dorsally carinate, the carinae on pereon segments 6 and 7 produced into teeth; gnathopod 1 (Fig. 2G) slender, chelate, article 2 with a small protuberance on anterior margin, article 3 elongate, 6 as long as 3-5 together; gnathopod 2 (Fig. 2H, I) very elongate and slender, simple, article 3 elongate, 7 tapering to an acute point which bears hooked setae; pereopods 1 and 2 powerful, article 4 slightly produced antero-distally; pereopods 3 and 4 with article 2 greatly lobed postero-distally so as to obscure most of articles 3 and 4; (pereopod 5 missing on both sides).

Pleon segments strongly carinate mid-dorsally, each with a pair of latero-dorsal humps; first pleonal epimeron postero-distally produced into a rounded lobe, the second acutely produced, a rounded lobe in centre of posterior margin; third pleonal epimeron postero-distally rounded, slightly produced; urosome

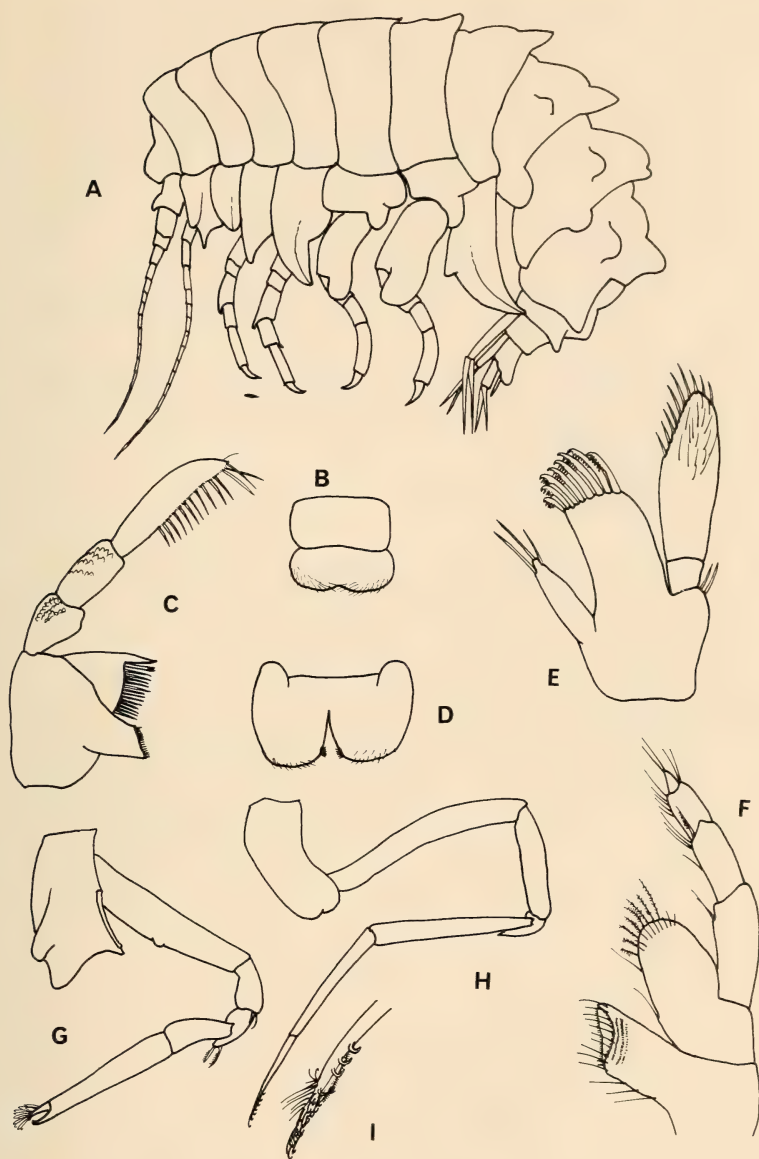


Fig. 2. *Dikwa acrania* n. gen., n. sp.  
 Female, 3 mm: A—lateral aspect; B—upper lip; C—mandible; D—lower lip;  
 E—maxilla 1; F—maxilliped; G—gnathopod 1; H—gnathopod 2; I—tip of  
 article 7 of gnathopod 2 enlarged.

strongly deflexed beneath pleon, segment 1 longer than 2 plus 3 and bearing a medio-dorsal and a pair of latero-dorsal humps, segments 2 and 3 smooth; uropods elongate, unarmed, rami narrow-lanceolate, projecting equally; telson slightly longer than broad, apically emarginate.

The entire integument appears to be composed of small plates, in places bearing a resemblance to the scales of a fish.

*Colour*: Uniform white (as preserved in 70% alcohol).

*Holotype*: SAM A13213, female, 3 mm.

*Type locality*: SST 11W, 32°22'S/22°31'E, 20 June 1972, depth 200 m, substrate coarse khaki sand.

*Remarks*: This unusual species can easily be recognized by the markedly reduced head. In life the antennae are flexed beneath the pereon so that the animal appears to have had its head broken off.

*Material*: 2 ♀♀ from the type locality.

*Iphimedia capicola* K. H. Barnard, 1932

*Iphimedia capicola* K. H. Barnard, 1932; 118, fig. 66.

*Records*: SCD 160B(1), SCD 181T (1), SCD 216N(1); SST 16M(4).

*Diagnosis*: Rostrum acute, downturned; article 1 of antenna 1 terminating in one dorsal and two ventral teeth, flagellum 12-articulate; pereon segments 1 and 7 much longer than other segments; pereon segment 7 and pleon segments 1–3 each with a pair of procumbent dorsal teeth; pleon segments dorsally keeled; postero-distal corner of third pleonal epimeron produced into an upturned tooth, a second upturned tooth on posterior margin of the epimeron; telson apically truncate, a pair of small denticles on each margin near the apex.

*Distribution*: Endemic to south and west coasts of South Africa.

Family Ampeliscidae

*Ampelisca acris* n. sp.

Fig. 3

*Ampelisca excavata*: K. H. Barnard, 1955: 82, fig. 40A.

(non) *Ampelisca excavata* K. H. Barnard, 1925: 336, pl. 34, figs 5–7. Gray & J. L. Barnard, 1970: 67–83, figs 1–5, pl. 1.

*Description of female* (11 mm): Head as long as two pereon segments (Fig. 3A), antero-ventral margin oblique; two pairs of eyes with corneal lenses, the lower pair just behind lateral angles of head, a small pigment spot behind upper eye; antenna 1 extending well beyond peduncle of antenna 2, flagellum 19-articulate;

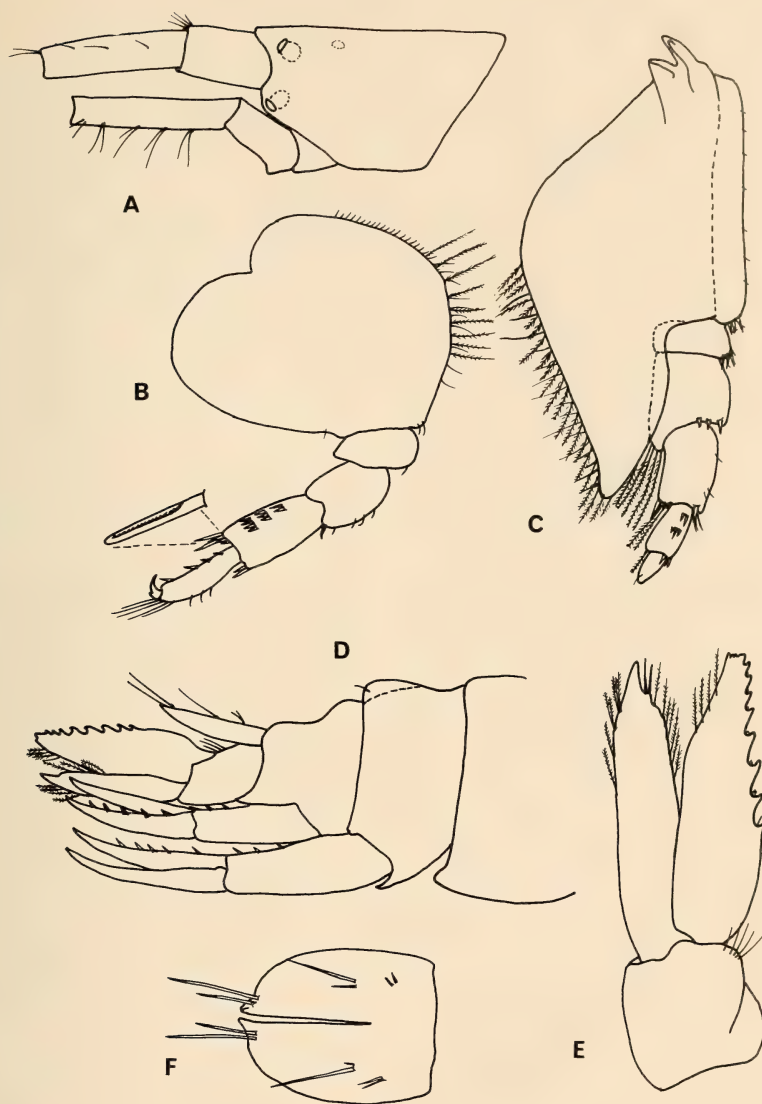


Fig. 3. *Ampelisca acris* n. sp.  
Female, 11 mm: A—head; B—pereopod 3; C—pereopod 5; D—lateral view of  
urosome; E—uropod 3; F—telson.

antenna 2 about half length of body, flagellum 20-articulate; mandibular palp borne on a large process, article 1 half as long as 2, article 3 60% length of 2, spine row of nine spines; outer plate of maxilla 1 with 11 spines, palp terminating in four cusp teeth, four blunt spines and about 10 setae; inner plate of maxilliped extending to tip of article 1 of palp, armed with two blade-like spines, outer plate bearing 10 spines ranging from short and blade-like proximally to long and evenly tapering distally.

Gnathopod 1 moderately setose, article 6 ovate, half as wide as long; dactyl less than half length of article 6 and bearing three accessory setae; gnathopod 2 more slender than 1, article 6 half length of 5, dactyl less than half article 6 and bearing six accessory setae; pereopod 1 not heavily setose, article 4 with antero-distal angle slightly produced, article 7 equal to 5 plus 6; coxae 1-3 each with a postero-distal tooth; article 2 of pereopod 3 (Fig. 3B) as wide as long, article 5 bearing four rows of spines posteriorly, the spines in the terminal row serrate, article 6 with a row of four spines along its hind margin, dactyl bifurcate; pereopod 4 very like 3 but with a shorter article 6 which bears spines on its anterior as well as posterior margin; pereopod 5 (Fig. 3C) with an unusual article 2 projecting to an acute point in line with the distal end of article 5, posterior margin slightly concave distally, anterior edge of the lobe partially obscuring articles 3 and 4, article 4 almost twice length of 3, its postero-distal corner slightly produced and bearing four plumose setae, article 5 equal to 4 and bearing an antero-distal spine and a postero-distal group of three spines and two plumose setae, article 6 slightly shorter than 5, two groups of spines on outer margin, article 7 short and wide.

Third pleonal epimeron very slightly produced postero-distally; pleon segment 4 weakly crested dorsally (Fig. 3D); uropod 1 projecting to end of uropod 2, rami equal, subequal to peduncle, inner ramus dorsally spinose; rami of uropod 2 equal, the outer dorsally spined; uropod 3 (Fig. 3E) with equal rami, the outer slightly the more slender, apically acute and setose on both margins, inner ramus with its upper margin cut into eight strong cusps, a minute accessory tooth in each hollow, tip of ramus serrate, its lower-distal margin bearing four plumose setae; telson 70% cleft (Fig. 3F), each lobe bearing 2 long apical setae and with two pairs of smaller setae on the dorsal surface.

*Holotype*: SAM A13206, female, 11 mm.

*Type locality*: MB 50Q, 34°11'S/22°09'E, 17 January 1956, depth 10 m, substrate rocky.

*Relationships*: There has been considerable confusion in the past between this species and *Ampelisca excavata* K. H. Barnard, 1925. K. H. Barnard's description of *A. excavata* was based on a single specimen, and when larger specimens of an apparently similar form were collected he ascribed these to the same species, concluding that his original specimen must have been abnormal (K. H. Barnard 1955).

Subsequently it has been found that these two batches of material represent distinct species. K. H. Barnard's original *A. excavata* has been redescribed in great detail by Gray & J. L. Barnard (1970) while his 1955 material is hereby renamed *Ampelisca acris* n. sp.

As can be readily appreciated by comparing Figure 3 with the illustrations in Gray & J. L. Barnard (1970), the two forms are quite distinct. *A. excavata* is altogether a stouter species with a bifurcation at the tip of article 2 of pereopod 5, a reduced inner ramus of uropod 1 and heavily chitinized rami on uropods 2 and 3. As well as differing in the structural features mentioned above, the two species can be distinguished by their modes of life, *A. acris* being a free-living tube builder, whereas *A. excavata* appears to be restricted to cirripede burrows in the shells of large molluscs such as *Turbo sarmaticus* Linn. and *Haliotis midae* Linn.

*Material*: SCD 160G(2); LIZ 17E(4); MB 50Q(3), MB 54X(1), MB 66V(1).

*Ampelisca anisuropa* (Stebbing, 1908)

*Byblis anisuropus* Stebbing, 1908a: 72, pl. 10. K. H. Barnard, 1955: 82, fig. 40B.

*Ampelisca anisuropa*: Griffiths, 1974a: 220.

*Records*: SCD 104X(1), SCD 173X(1), SCD 188D(2), SCD 204K(3), SCD 211Z(1), SCD 232C(4), SCD 321Q(2), SCD 392U(2); SST 5J(1), SST 9F(1), SST 16E(2); 33°S/28°E/86 m (Stebbing 1908a).

*Distribution*: Endemic, Natal to west coast of South Africa.

*Ampelisca anomala* Sars, 1882

*Ampelisca anomala*: Sars, 1895: 178, pl. 62, fig. 2.

*Records*: SCD 24J(1), SCD 41L(4); LIZ 29Q; MB 57E(1), MB 50R(1).

*Diagnosis*: Head with post-antennal corner acute; two pairs of eyes with large corneal lenses, the lower pair directed laterally; antennae fairly long, antenna 1 half as long as body, 2 slightly shorter than body; none of coxae with distal teeth; article 2 of pereopod 5 distally rounded, 3 longer than 4, 4 not produced distally, 6 equal to 4 plus 5, 7 of moderate size; third pleonal epimeron quadrate postero-distally; pleon segment 4 with a distinct triangular dorsal carina; telson 80% cleft, a single spinule at apex of each lobe.

*Distribution*: Scandinavia, South Africa.

*Ampelisca brevicornis* (Costa, 1853)

*Ampelisca brevicornis*: Reid, 1951: 204–210, figs 9–15. Kaim Malka, 1969: 928–932, pls 1–6.

*Records*: SCD 24K(9), SCD 95C(1), SCD 103W(1), SCD 122E(1), SCD 148K(4), SCD 160F(1), SCD 198E(1), SCD 202E(1), SCD 219F(3), SCD 222H(15), SCD 225H(12), SCD 244B(155), SCD 248H(20), SCD 257M(5), SCD 276M(3),

SCD 278J(3), SCD 315V(102), SCD 329V(2), SCD 338L(5), SCD 343T(1), SCD 349R(1), SCD 353M(1), SCD 366T(1), SCD 368V(1), SCD 370K(6), SCD 379N(1), SCD 381P(1), SCD 391F(4); SST 29E(42), SST 32F(5), SST 34F(14), SST 40S(10), SST 41N(1), SST 45D(8), SST 62M(2), SST 65B(4), SST 68N(2); 34°S/22°E/?m (K. H. Barnard 1916).

*Distribution:* Cosmopolitan.

*Ampelisca chiltoni* Stebbing, 1888

*Ampelisca chiltoni*: J. L. Barnard, 1961: 61, fig. 31.

*Records:* SCD 160E(1), SCD 232A(2), SCD 262G(1), SCD 356N(22), SCD 359A(1), SCD 392X(15); SST 1D(10), SST 5B(24), SST 9C(16), SST 16F(8), SST 47H(1); LIZ 32W(11); 32°S/28°E/86 m (Stebbing 1918).

*Distribution:* Australia, New Zealand, South Africa.

*Ampelisca diadema* (Costa, 1853)

*Ampelisca diadema*: Chevreux & Fage, 1925: 82, fig. 74.

*Records:* LIZ 32X(11).

*Distribution:* Europe, southern Africa.

*Ampelisca fusca* Stebbing, 1888

*Ampelisca fusca* Stebbing, 1888: 1052, pl. 105.

*Records:* SCD 181J(26), SCD 204L(20), SCD 235X(3), SCD 253G(1), SCD 269S(1), SCD 273E(1), SCD 300P(34), SCD 302T(1), SCD 321R(1); SST 19A(230), SST 24A(260), SST 34P(7).

*Distribution:* Endemic, Moçambique to South West Africa.

*Ampelisca natalensis* K. H. Barnard, 1916

*Ampelisca natalensis* K. H. Barnard, 1916: 137, pl. 26, fig. 7.

*Records:* LIZ 19P(1), LIZ 29O(1).

*Distribution:* Endemic, Natal to Port Elizabeth.

*Ampelisca palmata* K. H. Barnard, 1916

*Ampelisca palmata* K. H. Barnard, 1916: 136, pl. 28, figs 30–31.

*Records:* SCD 41M(6), SCD 93M(1), SCD 115F(2), SCD 141V(2), SCD 188C(10), SCD 192V(1250), SCD 193W(2), SCD 198F(3), SCD 204M(14), SCD 219G(7), SCD 232B(1), SCD 235W(17), SCD 248J(70), SCD 321P(1),

SCD 343R(47), SCD 356P(12), SCD 376L(7), SCD 381Q(1), SCD 383T(2), SCD 392Y(1); SST 56S(1); MB 10Q(1); ZZ 3U; 32°S/28°E/94 m (K. H. Barnard 1916).

*Distribution*: Senegal to Moçambique.

*Ampelisca spinimana* Chevreux, 1887

*Ampelisca spinimana*: Chevreux & Fage, 1925; 81, fig. 73.

*Records*: SST 45J(4); KNY 245H(1); BMR 23T(1).

*Distribution*: Europe, West and South Africa.

*Byblis gaimardi* (Kröyer, 1846)

*Byblis gaimardi*: Mills, 1971: 367–370, figs 6A, 7.

*Records*: SCD 300R(4), SCD 302X(1); 32°S/28°E/94 m (K. H. Barnard 1916).

*Distribution*: Arctic, North Atlantic, ? Pacific, South Africa.

Family **Amphilochidae**

*Cyproidea ornata* Haswell, 1880

*Cyproidea ornata*: J. L. Barnard, 1972a: 21, figs 4, 5.

*Records*: SCD 216D(13); J 11F; K 8P; E 223; L 504; Port Alfred, East London (K. H. Barnard 1940).

*Distribution*: Indo-Pacific, extending to South West Africa.

*Gitanopsis mariae* Griffiths, 1973

*Gitanopsis mariae* Griffiths, 1973: 275, fig. 4.

*Records*: SST 11X(5), SST 24Q(1).

*Distribution*: Endemic, Moçambique to Still Bay.

*Gitanopsis pusilla* K. H. Barnard, 1916

*Gitanopsis pusilla* K. H. Barnard, 1916: 144.

*Records*: SCD 55K(1), SCD 74J(2), SCD 173Y(28), SCD 198Y(3), SCD 392Z(1); SST 32M(1), SST 37W(4); HAV 3C(1); SS 55C; Still Bay (K. H. Barnard 1940).

*Distribution*: Southern Atlantic, southern Indian Ocean.

*Hoplopleon medusarum* K. H. Barnard, 1932

*Hoplopleon medusarum* K. H. Barnard, 1932: 105, fig. 54.

*Records*: SCD 338K(1); SST 16B(3).

*Distribution*: Endemic, south coast of South Africa to South West Africa.

Family **Ampithoidae***Ampithoe africana* K. H. Barnard, 1925

*Ampithoe africana* K. H. Barnard, 1925: 361.

*Records*: KNY 166F; Y 12G; East London (K. H. Barnard 1925).

*Distribution*: Endemic, Natal to Knysna.

*Ampithoe falsa* K. H. Barnard, 1932

*Ampithoe brevipes*: K. H. Barnard, 1916: 255, pl. 28, fig. 34.

*Ampithoe falsa*: Ruffo, 1969: 57, figs 18–20.

*Records*: LLL 6L; SS 55H; Still Bay (K. H. Barnard 1940).

*Distribution*: Indian Ocean.

*Ampithoe ramondi* (Audouin, 1826)

*Ampithoe intermedia*: Stebbing, 1910a: 462.

*Ampithoe vaillanti*: K. H. Barnard, 1916: 253.

*Ampithoe ramondi*: J. L. Barnard, 1970b: 50, figs 18, 19.

*Records*: SCD 20U(1); MB 10S(1), MB 40L(3), MB 58Q(1), MB 59F(1); LIZ 40F; L 493B; 33°S/26°E/18–29 m (Stebbing 1910a).

*Distribution*: Circumtropical.

*Cymadusa filosa* Savigny, 1818

*Grubia australis* K. H. Barnard, 1916: 258.

*Cymadusa australis*: K. H. Barnard, 1940: 480.

*Cymadusa filosa*: J. L. Barnard, 1955: 29, fig. 15.

*Records*: KNY 6L, KNY 11H, KNY 30A, KNY 122A, KNY 128A, KNY 139C(9), KNY 162A, KNY 179D(10), KNY 245G(4), KNY 283K(3); Knysna Lagoon (K. H. Barnard 1940).

*Distribution*: Circumtropical.

*Macropisthopus stebbingi* K. H. Barnard, 1916

*Macropisthopus stebbingi* K. H. Barnard, 1916: 260, pl. 28, figs 15–17.

*Records*: ZZ3R; SS 55K; Port Elizabeth (K. H. Barnard 1916); Still Bay (K. H. Barnard 1940).

*Diagnosis*: This species is the only representative of the genus, which is diagnosed as follows: antenna 1 without accessory flagellum; mandible with palp; both

gnathopods very feebly chelate; article 6 of pereopods 3–5 scarcely widened; pereopod 5 greatly enlarged, flattened; outer ramus of uropod 3 bearing two large hooks.

*Distribution:* South coast of South Africa.

### Family Cheluridae

#### *Chelura terebrans* Philippi, 1839

*Chelura terebrans*: Chevreux & Fage, 1925: 371, figs 379, 380.

*Records:* Port Elizabeth harbour (Stebbing 1910a).

*Diagnosis:* Head with large frontal process; pleon segment 1 with large medio-dorsal posteriorly directed process; urosome segments fused; uropods differing radically from one another in size and form; uropod 2 with short subequal rami, peduncle with large marginally setose winglike lobe; uropod 3 enormous, outer ramus very large, inner ramus small.

*Distribution:* Cosmopolitan.

### Family Colomastigidae

#### *Colomastix keiskama* n. sp.

#### Fig. 4

*Description of male* (4 mm): Head with anterior keel projecting between the antennae, eyes of moderate size, brown (in alcohol), lateral cephalic lobes evenly rounded; antenna 1 lacking spines, articles 1–3 each with a pair of ventral keels distally produced into small teeth, flagellum of a single terminally setose article; antenna 2 smooth, slightly shorter than 1; mandible (Fig. 4B) cut into five strong teeth, the first terminally bifurcate; maxilliped (Fig. 4C) with inner plates coalesced, outer plates each bearing a single terminal seta.

Coxae 1–6 smoothly rounded, oval, coxa 6 produced posteriorly into a semi-acute point (Fig. 4A); articles 5 and 6 of gnathopod 1 subequal, article 6 terminating acutely in about five setae; article 2 of gnathopod 2 faintly crenulate anteriorly, article 5 unusually large, bearing a wide setose posterior lobe, article 6 not more than 1.5 times the size of 5, as wide as long, palm about equal to hind margin, defined by three small cusps and bearing two subequal teeth near finger hinge, dactyl equal to palm; pereopod 3 smaller than 4 or 5, article 2 oval.

Pleonal epimeron 1–3 broadly rounded; uropod 1 with inner ramus terminating in a strong blade-like spine about 50 per cent length of body of ramus; uropods 2 and 3 projecting about equally and well beyond the tip of uropod 1, inner ramus of each marginally the longer and with its upper margin finely serrate; telson smoothly rounded (Fig. 4D).

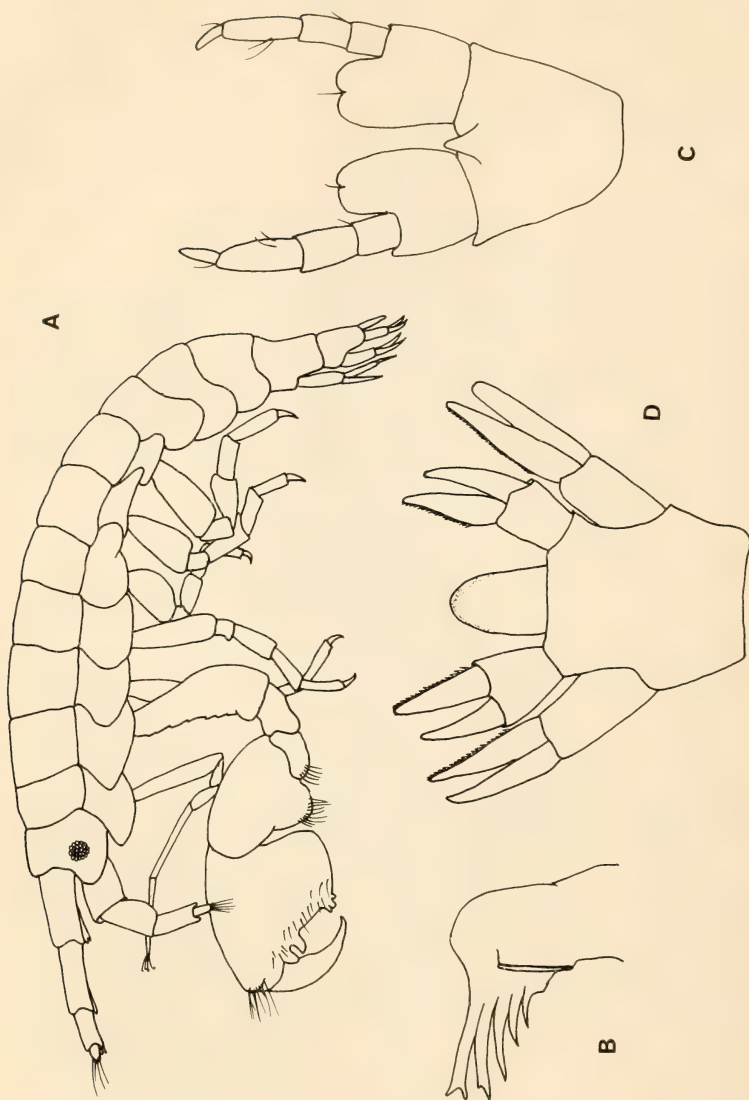


Fig. 4. *Colomastix keiskama* n. sp.  
Male, 4 mm: A—lateral aspect; B—maxilliped; C—mandible; D—fused urosomites 2 and 3 and telson in dorsal view.

*Holotype*: SAM A13208, male, 4 mm.

*Type locality*: SCD 179J, 33°59'S/25°41'E, 24 November 1960, depth 4–11 m, substrate rocky.

*Relationships*: The second gnathopod and first uropod are of most unusual structure and immediately distinguish this species from its relatives. Other species with equal rami of uropod 3 and an unsculptured telson include *C. pusilla*

Grube and *C. simplicauda* Nicholls but their second gnathopods are quite different from those of *C. keiskama* n. sp.

*Material*: SCD 179J, a single male.

*Colomastix pusilla* Grube, 1864

*Colomastix pusilla*: J. L. Barnard, 1971: 55, fig. 24.

*Records*: SCD 159U(20).

*Distribution*: Cosmopolitan in tropical and temperate seas.

Family **Corophiidae**

(Revised J. L. Barnard 1972*b*)

*Aora typica* Kröyer, 1845

*Aora typica*: J. L. Barnard, 1969*b*; 148, fig. 63.

*Records*: SCD 62C(1), SCD 118N(1), SCD 135D(1), SCD 148J(2), SCD 159Y(3), SCD 181V(4), SCD 198H(2), SCD 208G(1), SCD 225J(4), SCD 232D(1), SCD 244K(2), SCD 257H(5), SCD 276Q(2), SCD 287C(2), SCD 310H(1), SCD 321T(1), SCD 326K(1), SCD 338H(3), SCD 339R(2), SCD 353P(3), SCD 368V(1), SCD 379M(1), SCD 381S(6), SCD 392Z(2); SST 16P(1), SST 32B(1), SST 34J(1), SST 37U(5); LIZ 29R(2); T 13J; SS 55G.

*Distribution*: Cosmopolitan.

*Camacho bathyplous* Stebbing, 1888

*Camacho bathyplous*: J. L. Barnard, 1961: 115, figs 81, 82.

*Records*: 33°S/28°E/86 m (Stebbing 1908*a*).

*Diagnosis*: This genus is monotypic, the diagnosis being: antenna 1 elongate, greatly exceeding antenna 2, article 1 much longer than 3, accessory flagellum multi-articulate; mandibular palp 3-articulate; coxae short, serially discontinuous; gnathopods subchelate, uropods biramous, the third with inner ramus 30% length of outer.

*Distribution*: Indo-Pacific.

*Cerapus tubularis* Say, 1818

*Cerapus abditus*: K. H. Barnard, 1916: 271.

*Cerapus tubularis*: J. L. Barnard, 1962: 61, figs 27, 28.

*Records*: SCD 41K(3), SCD 60H(4), SCD 81B(1), SCD 159Z(1), SCD 244A(25), SCD 257J(3), SCD 262M(1), SCD 267L(2), SCD 312P(5), SCD 338E(1), SCD 342F(4), SCD 343V(4), SCD 353C(20); SST 32E(1); LIZ 13U(1).

*Distribution*: Cosmopolitan in warm and temperate seas.

*Cheiriphotis megacheles* (Giles, 1885)

*Cheiriphotis megacheles*: J. L. Barnard, 1962: 17, fig. 4.

*Records*: SCD 20M(10), SCD 20L(2), SCD 34D(1), SCD 34G(1), SCD 60J(20), SCD 62A(C), SCD 64B(C), SCD 81D(2), SCD 95J(18), SCD 124U(4), SCD 124V(1), SCD 189R(38), SCD 192Y(1), SCD 257G(101), SCD 278K(2), SCD 282S(10), SCD 283F(18), SCD 285S(4), SCD 312Q(7), SCD 329W(2), SCD 332S(15), SCD 338G(181), SCD 339Q(9), SCD 353F(14), SCD 379J(10), SCD 383V(1), SCD 391K(1); SST 45F(2); LIZ 3Z(12), LIZ 31S(1); MB 4U(4), MB 5H(4), MB 28G(8), MB 33N(1), MB 45E(1), MB 46F(1), MB 59H(1), MB 71K(2), MB 73M(7), MB 75K(4), MB 77Q(3), MB 80D(6).

*Distribution*: Indo-Pacific.

*Chevalia aviculae* Walker, 1904

*Chevalia aviculae*: J. L. Barnard, 1971: 88, fig. 42.

*Records*: SCD 62D(1), SCD 99N(4), SCD 181U(2), SCD 244J(5), SCD 302V(1), SCD 304R(18), SCD 308J(1), SCD 311J(2), SCD 366X(1); SST 16A(9), SST 19H(1), SST 24L(6), SST 47E(1); 34°S/23°E/230 m (K. H. Barnard 1916).

*Distribution*: Cosmopolitan in tropical and temperate seas.

*Concholestes armatus* n. sp.

Figs 5, 6

*Description of male* (6 mm): Ocular lobes of head strongly produced obliquely downwards, eyes small, black; antennae very large (Fig. 5A), 1 slightly shorter than body, articles 1 and 2 subequal, longer than 3, flagellum 12-articulate; antenna-2 longer than body, very sturdy, used to drag the animal and its *Dentalium* shell abode across the sea floor, flagellum of one long and one short article; mandible (Fig. 6A) bearing large molar composed of rows of sharp tubercles, palp uni-articulate, bearing long plumose setae; maxilla 1 (Fig. 6B) with bi-articulate palp, article 2 terminating in six strong serrate spines, outer plate also ending in six strong serrate spines, inner plate smooth; plates of maxilla 2 subequal, the inner with an oblique row of 16 setae medially (Fig. 6C), both plates terminally setose; maxilliped (Fig. 6D) with 4-articulate palp, inner plate with three terminal blade spines, outer plate with proximal spines blade-like, the more distal ones becoming longer and more slender.

Coxae 1 and 2 produced forwards, marginally setose; gnathopod 1 simple (Fig. 5B), article 5 longer than 6, dactyl extremely large, bearing seven strong spines along its posterior margin; gnathopod 2 (Fig. 5C) subchelate, article 2 broad, six very strong spines and one small one forming a comblike row along anterior margin, article 3 bearing two anterior spines, article 6 longer than 5,

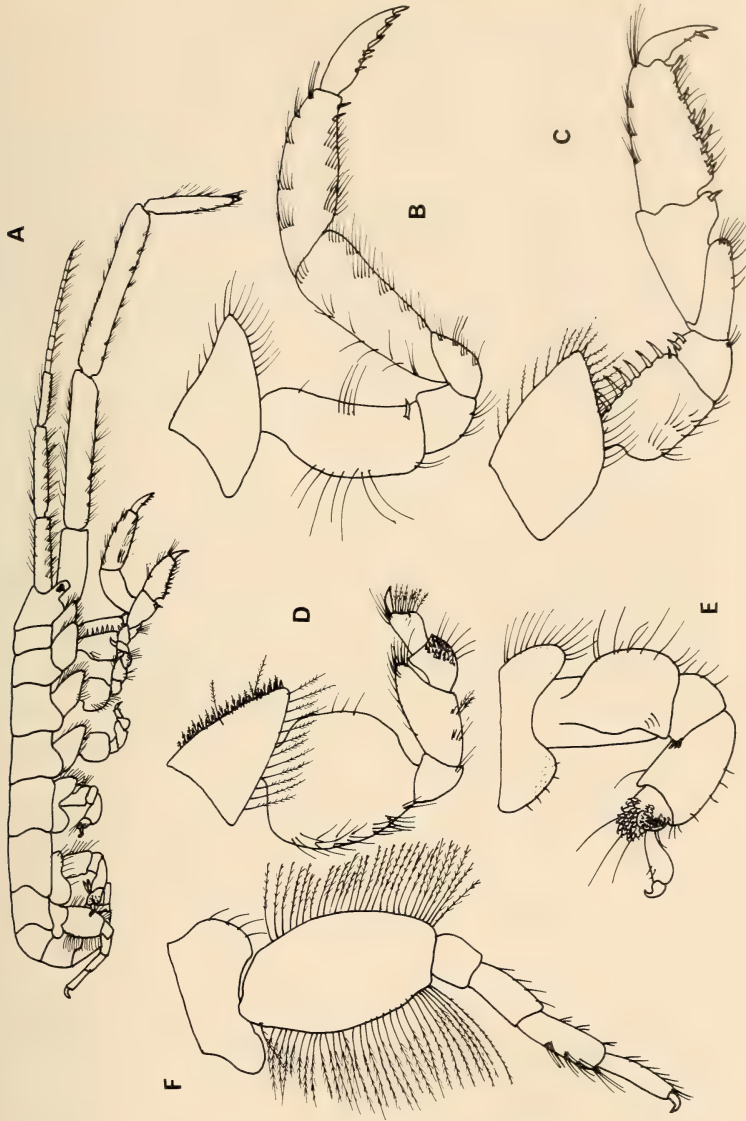


Fig. 5. *Concholestes armatus* n. sp.  
Male, 6 mm: A — lateral aspect; B — gnathopod 1; C — gnathopod 2; D — pereiopod 1; E — pereiopod 3; F — pereiopod 5.

widest at its base, palm spinose, dactyl shorter than palm, bearing a distal spine; coxa 3 anteriorly lined by a row of short spines and setae, posterior margin lined by long plumose setae; article 2 of pereiopod 1 subcircular (Fig. 5D), article 5 posteriorly covered in short thick spines; coxa 4 triangular, not spinose; pereiopod 2 like 1; pereiopod 3 small, directed posteriorly (Fig. 5E), article 5 bilobed, outer lobe covered in minute spines, inner lobe bearing many large hooked spines; pereiopod 4 similar to 3 but somewhat larger; pereiopod 5 (Fig. 5F) elongate, article 2 strongly setose.

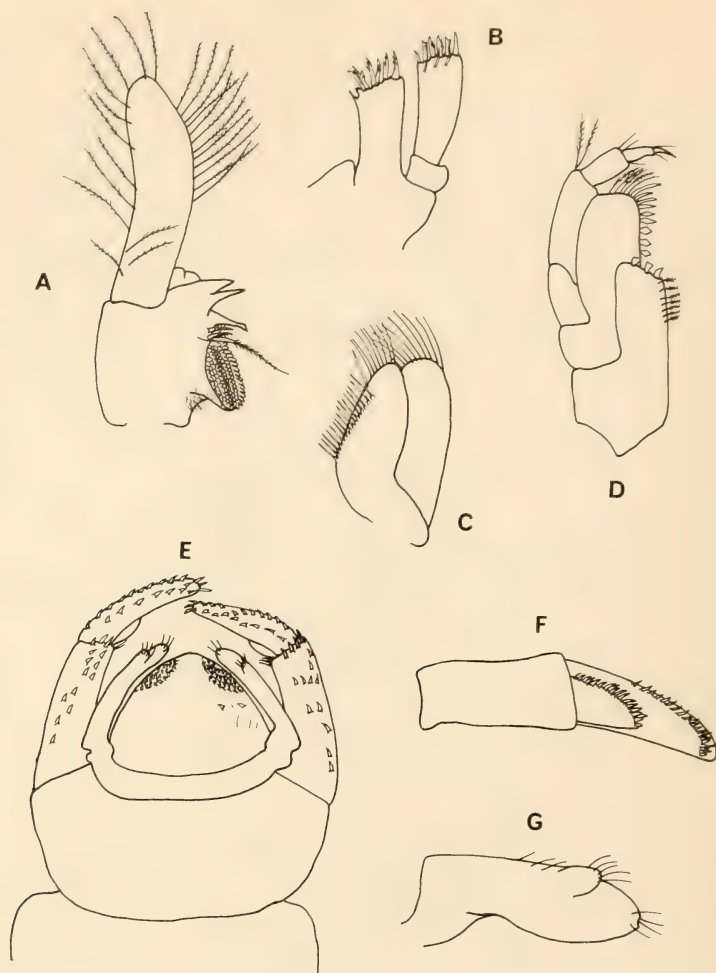


Fig. 6. *Concholestes armatus* n. sp.

Male, 6 mm: A—mandible; B—maxilla 1; C—maxilla 2; D—maxilliped; E—dorsal view of urosome; F—ventral view of uropod 1; G—uropod 2 as seen laterally.

Pleonal epimera rounded, setose; urosome (Fig. 6E) reduced, tucked between pereopods, only two segments present; segment 1 bearing a pair of large biramous uropods, both peduncle and rami heavily spinose (Fig. 6E, F), inner ramus 50% length of outer; second urosome segment less than half length of first, bearing a pair of laterally flattened uropods represented by a distally bilobed peduncle (Fig. 6E, G); telson very large, squamous, laterally strongly spinose.

*Female*: Ovigerous at 4 mm: the eggs are restrained by the pereopods which angle in ventrally to form a tunnel beneath the body, the brood lamellae are

reduced to narrow lobes. In one case newborn young were found to occupy the narrow end of a *Dentalium* shell in which a large female was living.

*Holotype*: SAM A13207, male, 6 mm (13 mm including antennae).

*Type locality*: SST 1B, 35°22'S/22°31'E, 20 June 1972, depth 200 m, substrate coarse khaki sand.

*Relationships*: This species closely resembles *C. dentali* Giles in its habits and in its unusually strong antennae and reduced third uropods. Unfortunately, however, Giles's description of the urosome of his species is unclear and he fails to describe its mandibular palp. The urosome is described as follows: '4th abdominal appendage biramous; 6th blunt, rounded, without rami, nearly hidden beneath the squamous telson . . . of the fifth abdominal appendage I have been unable to obtain a satisfactory view, it is small and its peduncle is very short, though of considerable width. The ramus appears to be single and rounded.'

Despite his mention of a third uropod Giles's figure of the urosome (also reproduced by J. L. Barnard, 1969b) shows only two urosome segments and two pairs of uropods. Assuming Giles's verbal description of this unexpected and difficult to observe urosome to be erroneous, I have not erected a new genus for my species, especially since the chances of two distantly related forms occupying an identical niche seem remote. Should re-examination of *C. dentali* reveal a third urosomite or a mandibular palp of more than 1 article, this would necessitate the erection of a new genus for *C. armatus*.

*Material*: SST 1B(4), SST 5A(1), SST 11N(7).

*Corophium acherusicum* Costa, 1857

*Corophium acherusicum*: J. L. Barnard, 1971: 59, figs 17, 26.

*Records*: LIZ 1K(2); MB 87N(1).

*Distribution*: Cosmopolitan in tropical and temperate seas.

*Corophium triaenonyx* Stebbing, 1904

*Corophium triaenonyx* Stebbing, 1904: 25, pl. 6A.

*Records*: SUN 5E(1); BMR 25G(2); HAV 3A(A), HAV 5B(2), HAV 7N(C), HAV 10D(C), HAV 18K(C); KNY 112B, KNY 139D, KNY 160A, KNY 166E, KNY 176D, KNY 181B, KNY 184B, KNY 191E; GBR 23D, GBR 37B(14), GBR 46A(2); STJ 15J(P), STJ 16G(C), STJ 26B(C), STJ 27L(2), STJ 31T(A), STJ 32B(C); Keurbooms River, Plettenberg Bay, Knysna (K. H. Barnard 1940).

*Distribution*: Atlantic, Mediterranean, Indian Ocean.

*Erichthonius brasiliensis* (Dana, 1853)

*Erichthonius brasiliensis*: J. L. Barnard, 1971: 61, fig. 17E.

*Records*: LIZ 40E(10); MB 40V(1), MB 50W(C), MB 87B(4); KNY 139E; L 458B; 32°S/26°E/18–29 m (Stebbing 1910a).

*Distribution:* Cosmopolitan in tropical and temperate seas.

*Gammaropsis afra* Stebbing, 1888

*Eurystheus afer*: Stebbing, 1910a: 461.

*Gammaropsis afra*: J. L. Barnard, 1970b: 170, fig. 108.

*Records:* 33°S/28°E/86 m, 33°S/26°E/18–29 m (Stebbing 1908a).

*Distribution:* Circumtropical.

*Gammaropsis atlantica* Stebbing, 1888

*Eurystheus atlanticus*: Stebbing, 1910a: 461.

*Gammaropsis atlantica*: J. L. Barnard, 1971: 91, figs 43–45.

*Records:* SCD 10S(4), SCD 34C(3), SCD 55D(1), SCD 81A(1), SCD 93P(1), SCD 95A(50), SCD 102D(3), SCD 103T(1), SCD 128Q(3), SCD 172V(1), SCD 181X(1), SCD 185J(1), SCD 204R(1), SCD 208K(5), SCD 222L(1), SCD 269R(2), SCD 280K(1), SCD 300Q(5), SCD 302P(26), SCD 304Q(1), SCD 319X(4), SCD 321N(3), SCD 324G(3), SCD 328G(1), SCD 345S(2), SCD 352A(2), SCD 353A(24), SCD 392R(13); SST 5G(4), SST 16D(4), SST 24C(1); LIZ 37L(2), LIZ 40B(2); MB 50X(1), MB 61U(C), MB 66P(1), MB 87D(5), MB 86C(1); 33°S/28°E/86 m, 33°S/26°E/18–29 m (Stebbing 1908a).

*Distribution:* Circumtropical.

*Gammaropsis holmesi* (Stebbing, 1908)

*Eurystheus holmesi* Stebbing, 1908a: 85, pl. 14A.

*Eurystheus semidentatus* K. H. Barnard, 1916: 250, pl. 28, figs 13, 14.

*Records:* SCD 62E(2), SCD 135K(1); LIZ 40H(2); 33°S/26°E/18–29 m (Stebbing 1908a).

*Distribution:* Endemic, Natal to Saldanha Bay.

*Grandidierella bonnieroides* Stephensen, 1948

*Grandidierella bonnieri*: Ledoyer, 1967: 137, fig. 28A. Griffiths, 1973: 283; 1974b: 228.

(non) *Grandidierella bonnieri* Stebbing, 1908b: 120, pl. 16.

*Grandidierella bonnieroides*: Myers, 1970: 141, figs 1, 2.

*Records:* STJ 6A(A).

*Distribution:* Indian Ocean, Caribbean.

*Remarks:* Myers (1970) re-examined Stebbing's type material of *G. bonnieri* and found it to have only a single distal tooth on article 5 of gnathopod 1, as compared with the three distal teeth present in the material of Ledoyer and

Griffiths. These records are thus transferred to *G. bonnieroides* Stephensen. Myers further points out that different populations of *G. bonnieroides* from differing locations show variation in sternal armature, and that this factor is thus not of taxonomic significance.

*Grandidierella chelata* K. H. Barnard, 1951

*Grandidierella chelata* K. H. Barnard, 1951: 708, fig. 7.

*Records*: HAV 7H(A), HAV 17A(A); STJ 14A(A), STJ 15G(A), STJ 16H(P), STJ 27J(P).

*Distribution*: Endemic, Port St. Johns to South West Africa.

*Grandidierella lignorum* K. H. Barnard, 1935

*Grandidierella lignorum* K. H. Barnard, 1935: 300, fig. 14.

*Records*: BMR 23S(4), BMR 25J(1), BMR 26U(1); HAV 3B(C), HAV 9A(5), HAV 13K(A); KNY 101A, KNY 184A; GBR 46C(2); BRE 51M(3), BRE 52M(7), BRE 71M(C), BRE 77H(3), BRE 81A(C); STJ 8A, STJ 14B(P), STJ 15H(P), STJ 24K(P), STJ 27K(P); Keurbooms River, Plettenberg Bay (K. H. Barnard 1940).

*Distribution*: Estuaries around the Indian Ocean.

*Lembos hypacanthus* K. H. Barnard, 1916

*Lembos hypacanthus* K. H. Barnard, 1916: 237, pl. 28, figs 5, 6.

*Lembos hirsutipes* (non Stebbing 1895): K. H. Barnard, 1951: 706.

*Records*: KNY 13G, KNY 139B, KNY 166G, KNY 171F.

*Distribution*: Endemic, Natal to South West Africa.

*Neomicrodeutopus nyala* n. sp.

Fig. 7

*Description of male* (4 mm): Head anteriorly truncate, eyes circular with the centre black; mandible with 3-articulate palp, articles 1 and 3 subequal, shorter than 2, molar large, lacinia mobilis present (Fig. 7E), spine row of three spines; inner plates of maxilliped (Fig. 7F) with three apical blade-spines, outer plate with seven blade-spines along inner margin, the spines becoming progressively longer distally, palp 4-articulate, the terminal article bearing three strong setae; (antennae missing).

Coxae short, not touching serially; gnathopod 1 (Fig. 7B) powerful, article 5 postero-distally produced into two teeth separated by a semicircular concavity, article 6 much narrower than 5, bearing a small bump on posterior margin,

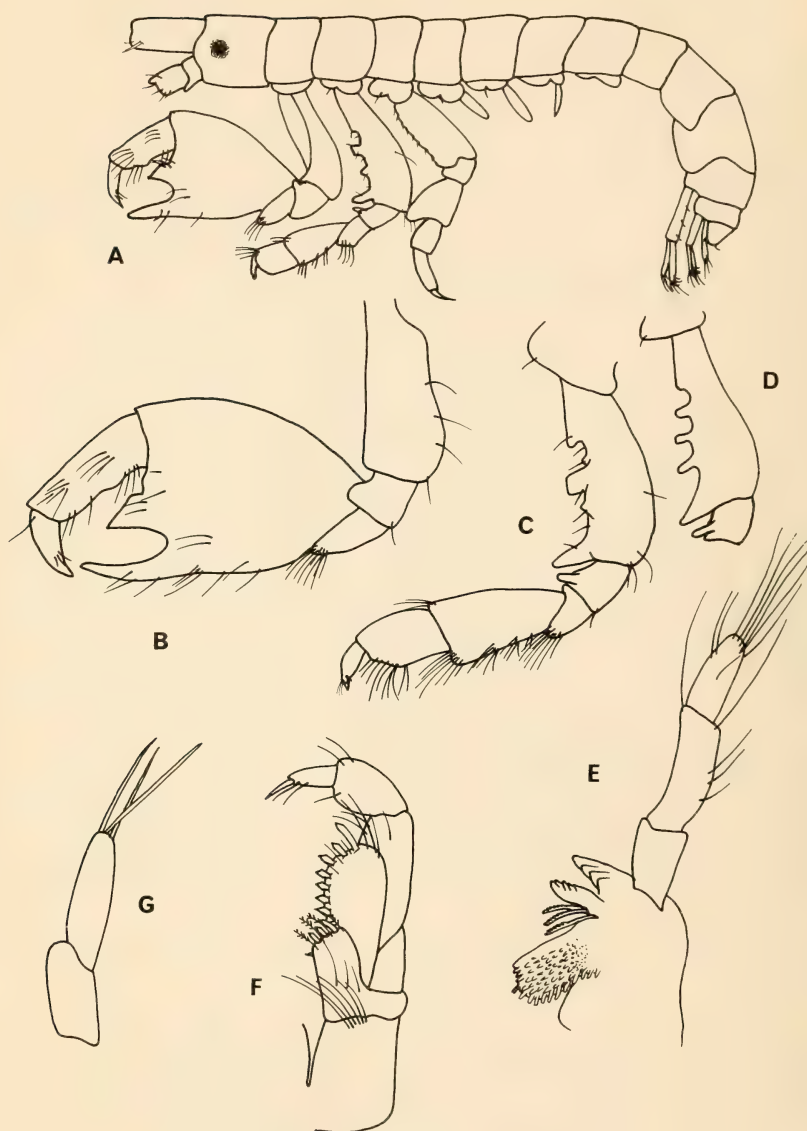


Fig. 7. *Neomicrodeutopus nyala* n. sp.  
 Male, 4 mm: A—lateral aspect; B—gnathopod 1; C—gnathopod 2 left side;  
 D—article 2 of gnathopod 2 right side; E—mandible; F—maxilliped;  
 G—uropod 3.

7 shorter than 6; article 2 of gnathopod 2 (Fig. 7C) anteriorly produced into a number of projections (in this individual four fairly regular teeth on one side and three teeth on the other), the distal tooth the largest, article 3 anteriorly produced into an elongate lobe, article 5 longer than 6, palm oblique, not defined, dactyl terminating in a large spine and three setae; pereopod 1 stout, article 2 regularly crenulate anteriorly; (pereopods 2–5 missing).

Pleonal epimera smoothly rounded, somewhat lobed postero-distally; uropods 1 and 2 biramous, rami equal, terminally strongly spinose, uropod 1 with a terminal peduncular spine projecting between the rami; uropod 3 (Fig. 7G) uniramous, ramus twice length of peduncle, uni-articulate, three long setae at its apex; telson quadrangular, a dorsal tubercle and two or three short setae on each corner.

*Holotype*: SAM A13069, male, 4 mm.

*Type locality*: SST 34Q, 34°40'S/21°39'E, 21 June 1972, depth 80 m, substrate coarse shelly sand.

*Relationships*: The unusual armature of article 2 of gnathopod 2 immediately distinguishes this species from the other three members of the genus. In addition *N. nyala* n. sp. differs from *N. makaka* J. L. Barnard in the narrower article 6 of gnathopod 1 and the uni-articulate ramus of uropod 3, and from *N. cabindae* Schellenberg in the shape of article 5 of gnathopod 1. *N. elongata* (Chevreux) has more produced optic lobes and a much longer peduncle of uropod 3 than *N. nyala* n. sp.

*Material*: SST 34Q, 2 ♂♂.

#### *Photis dolichommata* Stebbing, 1910

*Photis dolichommata* Stebbing, 1910b: 609, pl. 55B.

*Records*: SCD 34E(6), SCD 41P(4), SCD 81C(2), SCD 100P(2), SCD 102H(5), SCD 103U(1), SCD 181S(8), SCD 204Q(5), SCD 208H(2), SCD 235Y(1), SCD 249U(1), SCD 295A(1), SCD 353B(260); SST 1A(3), SST 16T(1); 34°S/22°E/230 m (K. H. Barnard 1916).

*Diagnosis*: Ocular lobes very long, eyes oval, large; palm of gnathopod 1 male oblique, not excavate, dactyl finely serrate; article 2 of gnathopod 2 male not lobed antero-distally, palm slightly oblique, defined by a fairly strong tooth and with two small processes along its length; inner ramus of uropod 3 30% length of outer, outer ramus with a minute second article.

*Distribution*: Australia, South Africa.

#### *Photis kapapa* J. L. Barnard, 1970

*Photis kapapa* J. L. Barnard, 1970b: 192, figs 124, 125.

*Records*: SCD 282V(3), SCD 287E(4); SST 16U(1).

*Distribution*: Hawaii, east coast of southern Africa.

*Photis longimanus* Walker, 1904

*Photis longimanus*: K. H. Barnard, 1916: 244. Sivaprakasam, 1969: 567, fig. 8.

*Records*: SCD 192Z(40), SCD 204Z(1), SCD 244M(10), SCD 248K(3), SCD 257P(4), SCD 338Q(6), SCD 339T(4), SCD 368S(5).

*Distribution*: Indian Ocean, extending to South West Africa.

*Photis uncinata* K. H. Barnard, 1932

*Photis longicaudata*: K. H. Barnard, 1916: 243, pl. 28, fig. 26.

*Photis uncinata* K. H. Barnard, 1932: 223, fig. 138.

*Records*: SCD 24N(4), SCD 60L(2), SCD 83D(3), SCD 95D(30), SCD 99L(1), SCD 103V(1), SCD 122F(10), SCD 131Y(4), SCD 141T(1), SCD 146A(24), SCD 148M(1), SCD 151G(7), SCD 159X(3), SCD 181W(2), SCD 184E(2), SCD 188A(27), SCD 189A(135), SCD 216G(2), SCD 244P(5), SCD 302U(1), SCD 319Z(1), SCD 321U(2), SCD 343Z(2), SCD 345Z(6), SCD 353J(38), SCD 370S(3), SCD 379Q(1), SCD 392Z(8); SST 19B(6), SST 24D(3), SST 29F(4), SST 32G(1), SST 34K(3), SST 40U(2); 33°S/28°E/83 m, 34°S/23°E/80 m (K. H. Barnard 1916).

*Distribution*: Endemic to South Africa.

*Siphonoecetes dellavallei* Stebbing, 1893

*Siphonoecetes dellavallei*: Chevreux & Fage, 1925: 361, fig. 369.

*Records*: SCD 135J(3), SCD 198M(5), SCD 236C(3), SCD 285R(2), SCD 300W(1), SCD 338C(450), SCD 339V(7), SCD 368Q(30), SCD 383U(10), SCD 384S(9); SST 24M(1), SST 32D(1), SST 34N(1), SST 45A(33), SST 65G(1), SST 67Q(2), SST 73F(2); MB 5G(13), MB 34L(5).

*Distribution*: Mediterranean, southern Africa.

*Siphonoecetes orientalis* Walker, 1904

*Siphonoecetes orientalis* Walker, 1904: 294, pl. 7, fig. 49. K. H. Barnard, 1916: 270.

*Records*: SCD 95F(6), SCD 96W(1), SCD 120B(1), SCD 192Z(6), SCD 237H(1); 32°S/28°E/95 m, 34°S/26°E/116 m (K. H. Barnard 1916).

*Distribution*: Tropical Indo-Pacific.

Family **Dexaminidae***Atylus granulosus* (Walker, 1904)

*Atylus granulosus*: Ledoyer, 1967: 127, fig. 8.

*Records*: SCD 24Y(1); SST 37S(2), SST 47G(1), SST 60M(1); LIZ 31P(1).

*Distribution*: Indian Ocean.

*Atylus guttatus* (Costa, 1851)

*Nototropis guttatus*: Chevreux & Fage, 1925: 194, figs 201–203.

*Records*: SCD 285L(5), SCD 332V(34), SCD 339W(1), SCD 383N(141).

*Distribution*: Europe, West and South Africa.

*Atylus homochir* Haswell, 1885

*Atylus homochir*: Stebbing, 1888: 908–913, pl. 74.

*Records*: 33°S/26°E/18–29 m (Stebbing 1910a).

*Diagnosis*: Body dorsally carinate but carinae produced into teeth only on pereon segment 7 and pleon segments 1–3; pleon segment 4 with two dorsal teeth, the hind one the larger; composite pleon segment 5 and 6 with a posterior tooth; article 2 of pereopod 3 not at all produced postero-distally; pleonal epimera 1–3 each produced into a minute point postero-distally.

*Distribution*: Australia, South Africa.

*Atylus swammerdami* (Milne-Edwards, 1830)

*Paratylus swammerdami*: Sars, 1895: 463, pl. 163.

*Atylus swammerdami*: Chevreux & Fage, 1925: 195, fig. 204.

*Records*: MB 20V(1), MB 28F(4), MB 69S(1), MB 82B(17).

*Distribution*: Europe, West and South Africa.

*Polycheria atolli* Walker, 1905

*Polycheria atolli*: Ledoyer, 1972: 205, pl. 27.

*Records*: SCD 10R(5), SCD 55F(6), SCD 160A(11), SCD 172U(54), SCD 173T(8), SCD 181P(30), SCD 244H(51), SCD 262N(1), SCD 366P(1), SCD 379L(1), SCD 388D(1); SST 16L(1); LIZ 17F(3), LIZ 37N(1); MB 54V(C), MB 69Q(3), MB 77R(1), MB 86B(1), MB 87M(2); L 410; VV 2H; Still Bay (K. H. Barnard 1940).

*Distribution*: Southern oceans, extending to tropical Indian Ocean.

Family **Eusiridae***Eusirus minutus* Sars, 1893

*Eusirus minutus*: Sars, 1895: 419, pl. 149, fig. 2.

*Records*: SST 16Q(1).

*Diagnosis*: Pereon segment 7 and pleon segments 1 and 2 dorsally toothed; article 6 of gnathopods 1 and 2 attached to upper distal corner of article 5 ('eusirid'); third pleonal epimeron postero-distally rounded, lower posterior

margin finely serrate; article 6 of pereopods 3–5 less than twice as long as article 2; telson evenly tapering, less than 20% cleft, apices divergent.

*Distribution*: Norway, South Africa.

*Eusiroides monoculoides* (Haswell, 1880)

*Eusiroides monoculoides*: J. L. Barnard, 1964: 221, fig. 1.

*Records*: SCD 59C(2), SCD 181Z(3), SCD 253E(2), SCD 300N(18), SCD 312R(9), SCD 353Q(4), SCD 366Y(2); LIZ 29P(1); 32°S/28°E/170 m, 33°S/28°E/120 m, 34°S/25°E/137 m (K. H. Barnard 1916).

*Distribution*: Circumtropical.

*Paramoera bidentata* K. H. Barnard, 1932

*Paramoera bidentata* K. H. Barnard, 1932: 211, figs 118m, 129.

*Records*: Still Bay (K. H. Barnard 1940).

*Distribution*: Endemic, Still Bay to South West Africa.

*Paramoera capensis* (Dana, 1853)

*Paramoera capensis*: K. H. Barnard, 1916: 183–186.

*Paramoera schizurus* Stebbing, 1918: 66, pl. 10.

*Records*: SCD 24Q(14), SCD 110U(1), SCD 285N(5), SCD 332U(22), SCD 338Q(3), SCD 339U(2), SCD 381V(1), SCD 391P(5); SST 16G(10), SST 47F(2), SST 65D(2), SST 73J(1); LIZ 13Q(1), LIZ 29M(7), LIZ 32Y(1); MB 21D(1), MB 28D(C), MB 32J(2), MB 33M(2), MB 38H(C), MB 57B(17), MB 59G(2), MB 66Q(1), MB 70R(7), MB 71J(2), MB 73K(4), MB 82A(2), MB 87A(5); KNY 13F, KNY 57B, KNY 139A, KNY 166C, KNY 171B(C), KNY 179B(1); GBR 24H(7); BRE 135B(5); J 11J, Q 5J; LIZ 11Z; X 11B; K80; Y 12F; E 235; ZZ 3M; T 3F; RR 4H; KN 2G; KKN 43G; SS 4L, SS 55D; East London, Port Elizabeth (K. H. Barnard 1916); Still Bay (K. H. Barnard 1940).

*Distribution*: Atlantic and Indo-Pacific.

Family Gammaridae

*Ceradocus rubromaculatus* (Stimpson, 1855)

*Ceradocus rubromaculatus*: J. L. Barnard, 1972a: 220, fig. 129.

*Records*: SCD 55G(2), SCD 93L(3), SCD 110V(1), SCD 159S(2), SCD 181M(3), SCD 262H(6), SCD 300M(8), SCD 353G(5), SCD 366N(4), SCD 388C(1); SST 47B(8), SST 52P(1); LIZ 37K(1); MB 10R(2), MB 13N(1), MB 23G(2), MB 40K(2), MB 50T(2), MB 54T(10), MB 66M(12), MB 77S(1), MB 84U(1);

KNY 171A(1); QQ 4X; L 316; X 22E; E 229; ZZ 3T; T 3U; KN 43F; S 540; 33°S/25°E/45 m (Stebbing 1908a).

*Distribution:* Indo-Pacific.

*Elasmopoides chevreuxi* Stebbing, 1908

*Elasmopoides chevreuxi* Stebbing, 1908a: 82, pl. 39.

*Records:* 33°S/28°E/86 m (Stebbing 1908a).

*Diagnosis:* Accessory flagellum exceeding 20 articles; eyes extending almost whole height of head; article 3 of mandibular palp as long as 2, article 1 simple; inner plates of maxillae strongly setose medially; gnathopods subchelate; article 2 of pereopods 3–5 strongly dentate posteriorly; uropod 3 not exceeding uropod 1, rami broad, equal, the outer uni-articulate; lobes of telson basally separate.

*Distribution:* The above record is the only one of this species to date.

*Elasmopus japonicus* Stephensen, 1932

*Elasmopus spinimanus* (non Walker, 1905): K. H. Barnard, 1925: 358.

*Elasmopus japonicus*: Sivaprakasam, 1968: 278, figs 3–5.

*Records:* Y 12K; E 230; Port Elizabeth (K. H. Barnard 1940).

*Distribution:* Indo-Pacific, extending to South West Africa.

*Elasmopus pecteniscrus* Bate, 1862

*Elasmopus pecteniscrus*: J. L. Barnard, 1970a: 125, figs 73, 74.

*Records:* J 11H; QQ 4Z; L 47S; X 22A; SS 55E; Still Bay, East London (K. H. Barnard 1940).

*Distribution:* Cosmopolitan in tropical and temperate seas.

*Eriopisa chilensis* (Chilton, 1921)

*Niphargus chilensis* Chilton, 1921: 531, fig. 4.

*Records:* KNY 42A, KNY 81A.

*Distribution:* India, east coast of South Africa.

*Eriopisa epistomata* Griffiths, 1974

*Eriopisa epistomata* Griffiths, 1974a: 186, fig. 4.

*Records:* SCD 276 P(2); SST 40V(2), SST 41M(7).

*Distribution:* Endemic, south coast of South Africa to South West Africa.

*Eriopisella capensis* (K. H. Barnard, 1916)

*Eriopisa capensis* K. H. Barnard, 1916: 187, pl. 27, figs 16–19.

*Records*: SCD 222M(6), SCD 228B(19), SCD 232J(10), SCD 356S(2).

*Diagnosis*: Antero-lateral angles of head rounded, eyes absent; mandibular palp slender, article 3 shorter than 2; article 5 of gnathopod 1 not distally widened, 6 oval, palm oblique, three times as long as hind margin; gnathopod 2 with article 5 triangular, wider than 6; pleonal epimera postero-distally rounded; inner ramus of uropod 3 25% length of elongate outer ramus; telson cleft to base, lobes dehiscent, each bearing 3–4 unequal spines.

*Distribution*: Endemic to south and west coasts of South Africa.

*Maera boeckii* (Haswell, 1879)

*Elasmopus boeckii*: K. H. Barnard, 1916: 199, pl. 27, figs 13, 14.

*Maera boeckii*: K. H. Barnard, 1940: 460.

*Records*: S 54J; Port Elizabeth (K. H. Barnard 1916); Still Bay (K. H. Barnard 1940).

*Diagnosis*: Coxa 1 moderately produced forwards; palm of gnathopod 2 slightly oblique, bearing four strong teeth, that closest to the finger hinge having one or two accessory cusps, dactyl slender, closing within the defining tooth; posterior margin of third pleonal epimeron entire; uropod 3 not exceeding uropod 1; telson 60% cleft, lobes dehiscent, two setae arising from excavate tip of each lobe.

*Distribution*: Australia, South Africa.

*Maera hamigera* Haswell, 1880

*Maera hamigera*: K. H. Barnard, 1916: 196, pl. 27, fig. 11. J. L. Barnard, 1965: 507, fig. 16.

*Records*: SCD 262J(1), SCD 310G(20), SCD 343Z(1), SCD 373P(3), SCD 374K(5); 33°S/27°E/120 m (K. H. Barnard 1916).

*Distribution*: Indo-Pacific.

*Maera inaequipes* (Costa, 1851)

*Maera inaequipes*: J. L. Barnard, 1959a: 25, pl. 5.

*Records*: SCD 10E(12), SCD 10T(3), SCD 24L(1), SCD 41N(10), SCD 55E(10), SCD 102E(7), SCD 118P(1), SCD 181N(35), SCD 253D(1), SCD 300S(10), SCD 302Q(1), SCD 353N(3), SCD 370R(1); SST 16J(2), SST 24E(1); MB 54Z(6), MB 86A(2); 32°S/28°E/141 m, 33°S/28°E/91 m (K. H. Barnard 1916).

*Distribution*: Cosmopolitan in tropical and temperate seas.

*Maera mastersi* (Haswell, 1880)

*Maera mastersi*: Sivaprakasam, 1968: 36, fig. 1A–G. J. L. Barnard, 1972a: 226, fig. 132.

*Records*: SCD 34F(1), SCD 95G(1), SCD 159R(140), SCD 198Z(2), SCD 227P(1), SCD 269T(2), SCD 273H(2), SCD 321W(6), SCD 326L(2), SCD 366U(7); SST 16N(8), SST 19G(33).

*Diagnosis*: Coxa moderately produced forwards; gnathopod 2 much larger than 1, palm defined by a small projection, proximal portion of palm smoothly concave, covered by a dense fur of very short setae, distal third of palm produced into a small hump bearing two or three short spines; third pleonal epimeron bearing three posterior serrations; uropod 3 greatly exceeding 1 and 2; telson cleft nearly to base, a small notch on inner margin of each apex bearing a single seta.

*Distribution*: Indo-Pacific.

*Remarks*: The above specimens bear a close resemblance to those figured by Sivaprakasam (1968), although his figures fail to show any 'fur' of setae on the palm of gnathopod 2. J. L. Barnard's Australian material shows marked differences from the South African and Indian forms, especially as regards the shape of the palm of gnathopod 2 and the setification of the telson. Further sampling is necessary before it can be shown with certainty whether the various morphs so far described are synonymous or represent different species.

*Mallacoota subcarinata* (Haswell, 1880)

*Elasmopus subcarinatus*: Stebbing, 1910a: 458.

*Maera subcarinata*: K. H. Barnard, 1940: 460, fig. 26.

*Mallacoota subcarinata*: J. L. Barnard, 1972a: 247, figs 144, 145.

*Records*: SCD 262Q(2); LIZ 40C(3); MB 69R(1); 33°S/26°E/18–29 m (Stebbing 1910a).

*Distribution*: Mediterranean, Indo-Pacific.

*Megaluropus agilis* Hoek, 1889

*Megaluropus agilis*: Pillai, 1957: 50, fig. 10.

*Records*: MB 82H(1).

*Diagnosis*: Gnathopods simple; article 5 of gnathopod 2 dilated distally, article 6 tapering distally; peduncle of uropod 3 short, rami greatly flattened, subequal, their margins irregularly setose.

*Distribution*: North Atlantic, Mediterranean, India, South Africa.

*Melita machaera* K. H. Barnard, 1955

*Melita machaera* K. H. Barnard, 1955: 90–92, fig. 45.

*Records*: SCD 338T(1); TRA 54F(1).

*Diagnosis:* Lower margins of articles 4–6 of gnathopod 1 thickly fringed with short setae; palm of gnathopod 2 male slightly oblique, crenulate, a marked semicircular concavity at its centre, defining angle bearing two teeth and a pocket on its inner surface into which the tip of the dactyl closes; pleon segments 3 and 4 each with a small medio-dorsal tooth, segment 5 with a pair of latero-dorsal teeth; uropod 3 as long as pleon segments 2–6 together.

*Distribution:* Endemic to south coast of South Africa.

*Melita orgasmos* K. H. Barnard, 1940

*Melita orgasmos* K. H. Barnard, 1940: 454. Sivaprakasam, 1966: 114, fig. 12 k–m.

*Records:* SCD 104Y(1); KNY 171E; LLL 6D; K 8N; Still Bay, Port Elizabeth (K. H. Barnard 1940).

*Distribution:* India, southern Africa.

*Melita zeylanica* Stebbing, 1904

*Melita zeylanica*: J. L. Barnard, 1972a: 235, figs 139–141.

*Records:* SUN 8K(8); BMR 7J(1), BMR 23T(1), BMR 25H(1), BMR 26S(8); HAM 3R(3), HAM 9B(A), HAM 11G(P); HAV 3G, HAV 5D(1), HAV 7K(P), HAV 8D(C), HAV 9B, HAV 10E(C), HAV 18J(A); KNY 50D, KNY 112A, KNY 179C, KNY 291E; GBR 24G(2), GBR 46B(1); BRE 30Z(2), BRE 31E(3), BRE 43F(5), BRE 44V(6), BRE 52N(2), BRE 71L(3), BRE 128A(1), BRE 135A(20), BRE 135C(1), BRE 144B(1), BRE 146A(4); STJ 7R, STJ 15K(C), STJ 16J(C), STJ 26F(1), STJ 27H(C), STJ 29G, STJ 31U(A), STJ 32C; Little Brak River, Keurbooms River, Wilderness lagoon, George, Port Elizabeth, East London (K. H. Barnard 1940).

*Distribution:* Indo-Pacific (a brack-water species).

*Pareiasmopus ? suluensis* (Dana, 1853)

*Pareiasmopus suluensis*: Stebbing, 1888: 1029, pl. 100.

*Records:* QQ 4Y, S 54F.

*Diagnosis:* None of coxae 1–4 with antero-ventral teeth; palm of gnathopod 2 male oblique; article 2 of pereopods 3–5 not grossly serrate, articles 3–5 not very setose; pereon segment 7 and pleon segments 1–4 each with a pair of strong dorsal teeth; third pleonal epimeron strongly serrate ventrally.

*Distribution:* ? Indo-Pacific.

*Remarks:* Considerable controversy surrounds the identity of this form (for discussion see J. L. Barnard, 1972a: 253). The specimens described above conform with those of Stebbing (1888) but Stebbing's material differs from that of Dana (1853) in the presence of dorsal teeth on pereon segment 7 and in the

weaker serrations on article 2 of pereopods 3-5. Authors subsequent to Stebbing have further confused the situation by synonymizing his *P. suluensis* with *P. setiger* Chevreux, a move which it now appears was unjustified. As the situation stands at present, definitive identifications cannot be made until the existing forms are reviewed by someone who has access to the original types. In the meantime I feel I cannot go further than to associate my material with the well-known description of Stebbing (1888).

### Family **Haustoriidae**

#### *Bathyporeia* sp.

*Bathyporeia gracilis*: K. H. Barnard, 1951: 704.

(non) *Bathyporeia gracilis* Sars 1891: 132-133, pl. 45 (1).

*Records*: SCD 244C(22), SCD 286H(2), SCD 329X(1), SCD 338M(1), SCD 349Q(1), SCD 370Q(1), SCD 376F(3), SCD 384R(1).

*Distribution*: Endemic, south coast of South Africa to South West Africa.

*Remarks*: This material was sent to Dr Wim Vader for use in a study on the status of *Bathyporeia gracilis* Sars, but was found by him to be an undescribed species (Vader 1970) which he is in the process of describing.

#### *Cunicus* n. gen.

*Diagnosis*: Antenna 1 geniculate between articles 2 and 3; antenna 2 geniculate between articles 3 and 4 and 4 and 5; mandibular palp not arising from basal process, molar represented by a spinose process; outer plate of maxilla 2 not enlarged; maxillipedal palp 4-articulate; coxae 1 and 2 rounded-quadrate, of moderate size; gnathopods subchelate, article 5 much longer than 6; pereopods with dactyls; uropods 1 and 2 represented by rounded setose lobes; uropod 3 biramous, rami subequal, the outer bi-articulate; telson cleft.

*Type species*: *Cunicus profundus* n. sp.

*Relationships*: This new genus lies closest to *Urothoe* but is distinguished from it by the reduced first and second uropods (these are biramous in *Urothoe*), the geniculate antennae and the unusual mandibular molar.

#### *Cunicus profundus* n. sp.

Figs 8, 9

*Description of male* (3.5 mm): Body not more than three times as long as wide; head as long as first two pereon segments, eyes absent; antennae short, subequal, held in life in a folded position along side of head; articles 1 and 2 of antenna 1 equal, setose dorsally (Fig. 8B), article 3 somewhat shorter than 2, joint

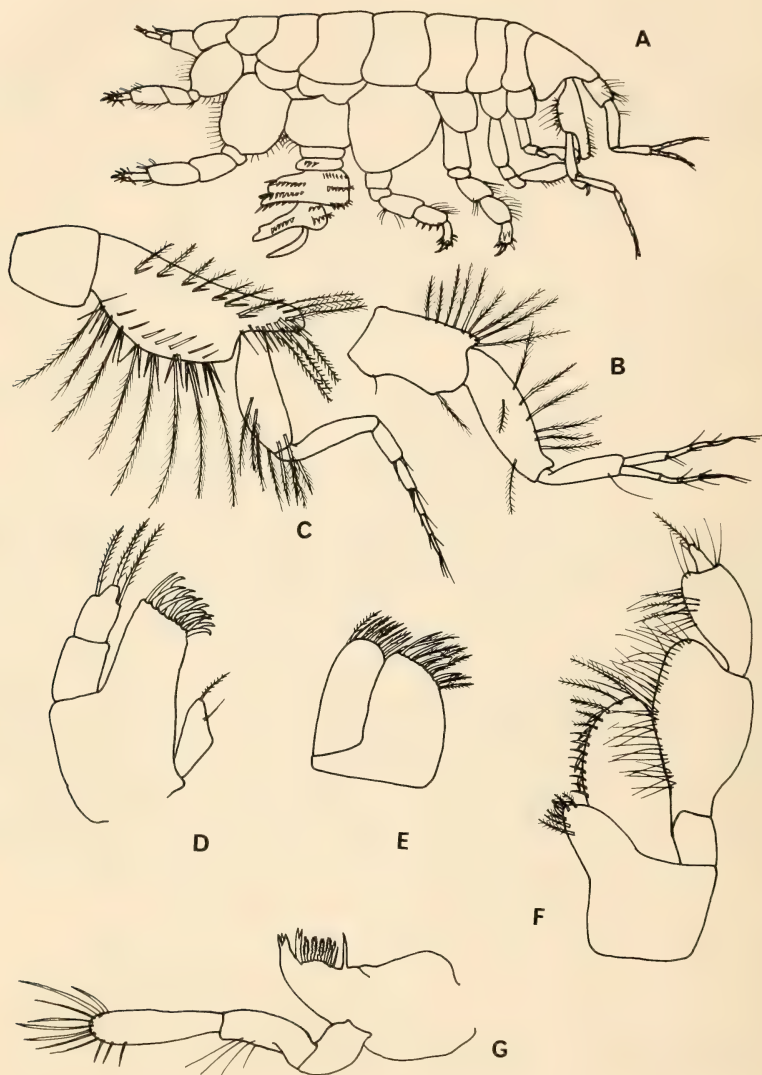


Fig. 8. *Cunicus profundus* n. gen., n. sp.  
Male, 3,5 mm: A—lateral view; B—antenna 1; C—antenna 2; D—maxilla 1;  
E—maxilla 2; F—maxilliped; G—mandible.

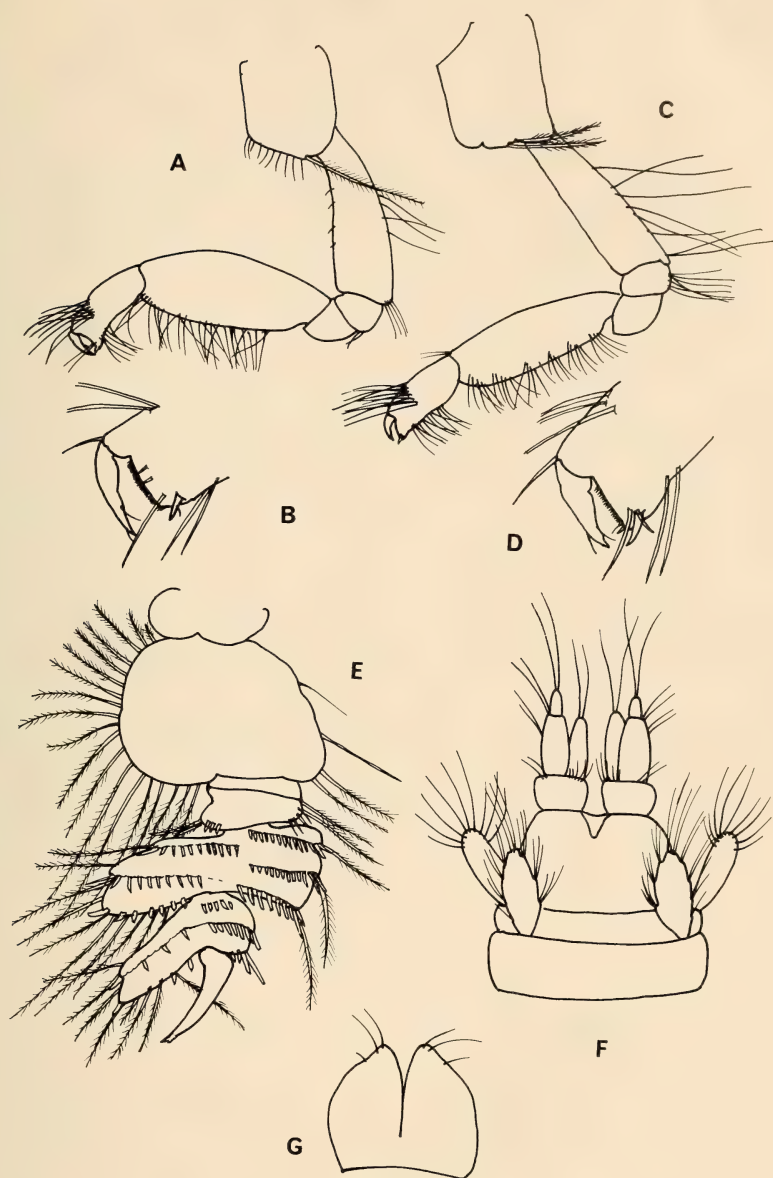


Fig. 9. *Cunicus profundus* n. gen., n. sp.  
Male, 3,5 mm: A—gnathopod 1; B—palm of gnathopod 1 enlarged; C—gnathopod 2; D—palm of gnathopod 2 enlarged; E—pereopod 3; F—ventral view of urosome; G—telson.

between articles 2 and 3 geniculate, flagellum equal to accessory flagellum, both 4-articulate; antenna 2 geniculate between articles 3 and 4 and 4 and 5, peduncle setose and spinose (Fig. 8C), flagellum 5-articulate; mandible (Fig. 8G) with 3-articulate palp, incisor tridentate, lacinia mobilis bifid, spine row of six serrate spines, molar represented by a spiniform process; palp of maxilla 1 bi-articulate (Fig. 8D), tipped by three plumose setae, outer plate bearing 12 strong spines, inner plate with two short setae; plates of maxilla 2 (Fig. 8E) terminating in a row of alternating simple and plumose setae; maxilliped (Fig. 8F) with 4-articulate palp, outer plate with five distal plumose setae and a medial row of alternating spines and setae, inner plate terminating in a group of spines surrounded by short plumose setae.

Coxae rounded, 1-4 successively larger, distally setose, coxa 4 extending to tip of article 2 of pereopod 2; gnathopods 1 and 2 (Fig. 9A-D) subchelate, palms minutely pectinate, transverse, defined by large spines; pereopods 1 and 2 each with article 5 posteriorly spinose, dactyl basally surrounded by a ring of spines; pereopod 3 (Fig. 9E) greatly widened and strongly spinose, article 2 fringed by long plumose setae, article 4 with a fascicle of plumose setae arising from its inner margin, article 5 twice as wide as long and with three transverse rows of short strong spines and a marginal row of plumose setae on posterior lobe, article 6 greatly produced postero-distally into a spinose and setose lobe overhanging the simple cultriform dactyl; pereopods 4 and 5 with plumose setae on posterior margin of article 2 and a ring of strong spines around base of dactyl.

Pleon somewhat narrower than pereon, pleonal epimera postero-distally rounded, the second with a fascicle of plumose setae on its external surface; urosome very short (Fig. 9F), uropods 1 and 2 represented only by rounded setose lobes; uropod 3 of normal structure, peduncle quadrate, outer ramus bi-articulate, slightly longer than the inner; telson cleft, extending to centre of rami of uropod 3, apex of each lobe with three small setae.

*Female:* Ovigerous at 3,5 mm, bearing 3-5 large eggs, otherwise similar to male.

*Holotype:* SAM A13212, male, 3,5 mm.

*Type Locality:* SCD 384P, 33°52'S/25°38'E, 15 December 1962, depth 7 m, substrate grey sand.

*Material:* SCD 83B(1), SCD 128 U(1), SCD 225F(2), SCD 285P(1), SCD 286F(1), SCD 350M(1), SCD 370P(1), SCD 384P(1).

*Remarks:* The body form of this species and the fact that it has been recovered from depths of up to 0,6 m beneath the sand surface bear witness to its extraordinary degree of adaptation to the fossorial mode of life. Morphological adaptations include the broadly truncated body shape, wide pereopods, large coxae, reduced urosome and the loss of eyes. Other features also considered advanced include the minimal degree of sexual dimorphism and small number

of eggs carried by the female (3–5). These factors taken together indicate that *Cunicus* is probably the most advanced burrowing amphipod known, certainly the tendency for reduction of urosome and broadening of pereon are taken to their extreme here.

*Urothoe coxalis* Griffiths, 1974

*Urothoe coxalis* Griffiths, 1974b: 238, fig. 5.

*Records*: KNY 157B(9).

*Distribution*: Endemic, Durban to Knysna.

*Urothoe elegans* Bate, 1857

*Urothoe elegans*: Chevreux & Fage, 1925: 101, fig. 95.

*Records*: SCD 232F(1), SCD 392T(1); SST 5E(3), SST 16H(1), SST 19E(1), SST 24J(4); 34°S/22°E/81 m (K. H. Barnard 1955).

*Distribution*: Atlantic and Indian Oceans.

*Urothoe grimaldi* Chevreux, 1895

*Urothoe grimaldii*: Chevreux & Fage, 1925: 99, fig. 93. K. H. Barnard, 1955: 84, fig. 41B.

*Records*: SCD 122D(1), SCD 135G(1), SCD 141M(7), SCD 146B(1), SCD 198L(95), SCD 202C(1), SCD 222N(1), SCD 225E(7), SCD 230C(1), SCD 232E(2), SCD 257N(14), SCD 267J(5), SCD 276L(10), SCD 278L(2), SCD 286D(10), SCD 315X(24), SCD 329V(8), SCD 348Z(4), SCD 368(T)1, SCD 370N(7), SCD 376G(13), SCD 381R(8); SST 1G(1), SST 61N(2), SST 73G(1); MB 71H(6); 34°S/22°E/110 m, 34°S/22°E/81 m (K. H. Barnard 1955).

*Distribution*: Atlantic, Mediterranean, India, South Africa.

*Urothoe platypoda* n. sp.

Fig. 10

*Description of male* (2.5 mm): Head as long as three pereon segments; eyes large, dark, subcircular; flagellum of antenna 1 5-articulate, accessory flagellum of two equal segments; antenna 2 as long as body (Fig. 10A), terminal article of peduncle bearing five large calceoli, flagellum slender, 26-articulate; palp of maxilla 1 bi-articulate, outer plate bearing 10 strong spines; mandible (Fig. 10B) with large quadrate molar and 3-articulate palp, article 1 of palp shorter than 2 or 3; maxilliped (Fig. 10C) with 4-articulate palp, article 2 broadly expanded medio-distally, the expansion strongly setose, article 3 widening distally, outer plate twice length of inner, bearing five strong spin-teeth medially, inner plate terminating in five curved spines and a few short plumose setae.

Coxa 1 tapering to an acute apex, coxae 2–4 slightly produced backwards,

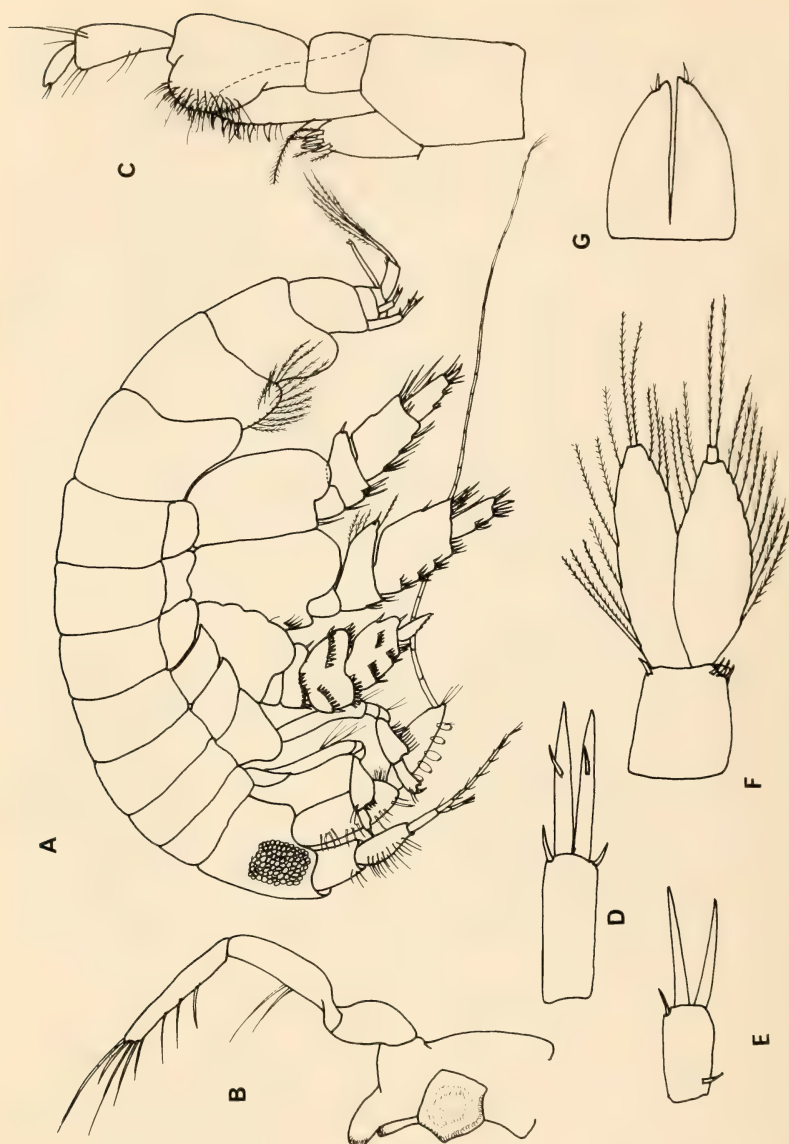


Fig. 10. *Urothoe platypoda* n. sp.

Male, 2,5 mm: A—lateral aspect; B—mandible; C—maxilliped; D—uropod 1; E—uropod 2; F—uropod 3; G—telson.

remaining coxae rounded; gnathopod 1 simple, article 5 expanded posteriorly, bearing four spines postero-distally, article 6 small; gnathopod 2 subchelate, palm strongly concave; pereopods 1 and 2 strongly spinose posteriorly, dactyls present; article 2 of pereopod 3 unusually large, posterior margin scalloped, postero-distal corner lobed to obscure part of article 3, article 4 with a single postero-distal spine and a row of nine antero-distal spines, article 5 somewhat broader than long, bearing two transverse rows of ten and nine spines anteriorly and two rows of nine and six spines posteriorly (Fig. 10A), article 6 with three

anterior rows of seven, five and three spines, a central group of five spines and two single spines on posterior margin, dactyl broad, anteriorly serrate; article 2 of pereopods 4 and 5 large, lobed postero-distally, articles 4 and 5 strikingly broadened, 4 being as wide as 2.

Pleon segments very large, pleonal epimera postero-distally rounded, the second bearing plumose setae on its outer surface; rami of uropod 1 (Fig. 10D) equal, peduncle with two distal spines and each ramus with a single large spine mid-dorsally; uropod 2 (Fig. 10E) much shorter than 1, peduncle with one proximal and one distal spine, rami naked; uropod 3 (Fig. 10F) with quadrate peduncle, rami foliaceous, subequal, bearing long marginal plumose setae, outer ramus with a short article 2; telson (Fig. 10G) 1.5 times as long as peduncle of uropod 3, cleft to base, each lobe bearing a single spine and a minute seta at its apex

*Female* (3 mm): Similar to the male except for the eyes, second antennae and third uropods. The eyes are much smaller than those of the male, being composed of about 12 well-spaced ommatidia, while antenna 2 is subequal to antenna 1, lacks calceoli and has a 2-articulate flagellum. The third uropods do not exceed the tip of the telson and have fewer, shorter marginal setae.

*Holotype*: SAM A13210, male, 2.5 mm.

*Type locality*: SCD 391G, 34°05'S/23°24'E, 8 December 1962, depth 11 m, substrate yellow sand.

*Relationships*: The shape of pereopods 3–5 serves to diagnose this species. The second articles (especially that of pereopod 3) are unusually large and the enlarged flattened articles 4 and 5 of pereopods 4 and 5 are unique in the genus.

*Material*: SCD 202D(6), SCD 230B(1), SCD 349N(1), SCD 391G(12).

*Urothoe pinnata* K. H. Barnard, 1955

*Urothoe pinnata* K. H. Barnard, 1955: 86, fig. 42.

*Records*: SCD 288G(1); SST 52N(5), SST 54B(2), SST 56P(3).

*Distribution*: Endemic, Natal to False Bay.

*Urothoe pulchella* (Costa, 1853)

*Urothoe pulchella*: Chevreux & Fage, 1925: 99, fig. 92. K. H. Barnard, 1955: 83, fig. 41A.

*Records*: SCD 74A(1), SCD 83A(2), SCD 104T(1), SCD 128S(2), SCD 135F(20), SCD 148H(16), SCD 173W(1), SCD 202B(2), SCD 211V(3), SCD 285Q(6), SCD 286E(1), SCD 287D(1), SCD 333R(4), SCD 345U(19), SCD 348Y(1), SCD 349M(10), SCD 350L(1), SCD 383P(9), SCD 384N(45), SCD 391H(19); SST 1E(2), SST 9B(2), SST 32C(1), SST 34H(3), SST 56U(3), SST 59K(3), SST 60J(8), SST 61M(3), SST 62N(1), SST 63Q(1), SST 65E(9), SST 67M(4),

SST 74D(1), SST 76M(1), SST 77D(7), SST 78D(5); MB 82C(2); SUN 5D(10); HAV 7M, HAV 13L(2), HAV 17B(A); KNY 187B(3); GBR 12C(45), GBR 16J(7); STJ 14C(C), STJ 15L(P), STJ 16U(1), STJ 17C(1); 34°S/22°E/109 m (K. H. Barnard 1916); 34°S/22°E/77 m, 34°S/22°E/110 m (K. H. Barnard 1955).

*Distribution*: Mediterranean, Atlantic, South Africa.

*Urothoe tumorosa* Griffiths, 1974

*Urothoe tumorosa* Griffiths, 1974b: 241, fig. 6.

*Records*: SST 54C(2).

*Distribution*: Endemic, Durban to Still Bay.

Family **Ischyroceridae**

*Ischyrocerus anguipes* Kröyer, 1838

*Ischyrocerus anguipes*: J. L. Barnard, 1954: 35, pls 32, 33; 1969b: fig. 107B.

*Records*: SS 55L.

*Distribution*: Cosmopolitan in tropical and temperate seas.

*Jassa falcata* Montagu, 1808

*Jassa falcata*: Sexton & Reid, 1951: 30-47, pls 4-30. J. L. Barnard, 1969a: 115, figs 38, 39.

*Records*: MB 21E(1); KNY 166D, KNY 176C(A), KNY 179E(1); J 11K; L 458A; E 234; ZZ 3N; T 13L; VV 2J; AR 1R(1).

*Distribution*: Cosmopolitan.

*Parajassa chikoa* n. sp.

Fig. 11

*Description of male* (2,5 mm): Head as long as three pereon segments, ocular lobes moderately produced, distally rounded, eyes round; antenna 1 slightly shorter than pereon, articles 2 and 3 subequal, 1,5 times as long as 1, flagellum 4-articulate, accessory flagellum not seen, presumed vestigial; mandible (Fig. 11B) with large 3-articulate palp, article 1 shorter than 2, 2 equal to 3, 3 strongly setose distally, cutting edge of five strong teeth, lacinia mobilis apically bifurcate, spine row of two strong spines, molar large, tritulative; outer lobes of lower lip simple, neither notched nor excavate; maxilla 1 (Fig. 11D) bearing bi-articulate palp, distal article ending in five serrate blade-spines and three subterminal plumose setae, outer plate bearing seven strong serrate spines, inner plate simple; maxilliped (Fig. 11E) with 4-articulate palp, outer plate bearing seven medio-distal spines, inner plate with an oblique row of plumose setae and three small distal spines.

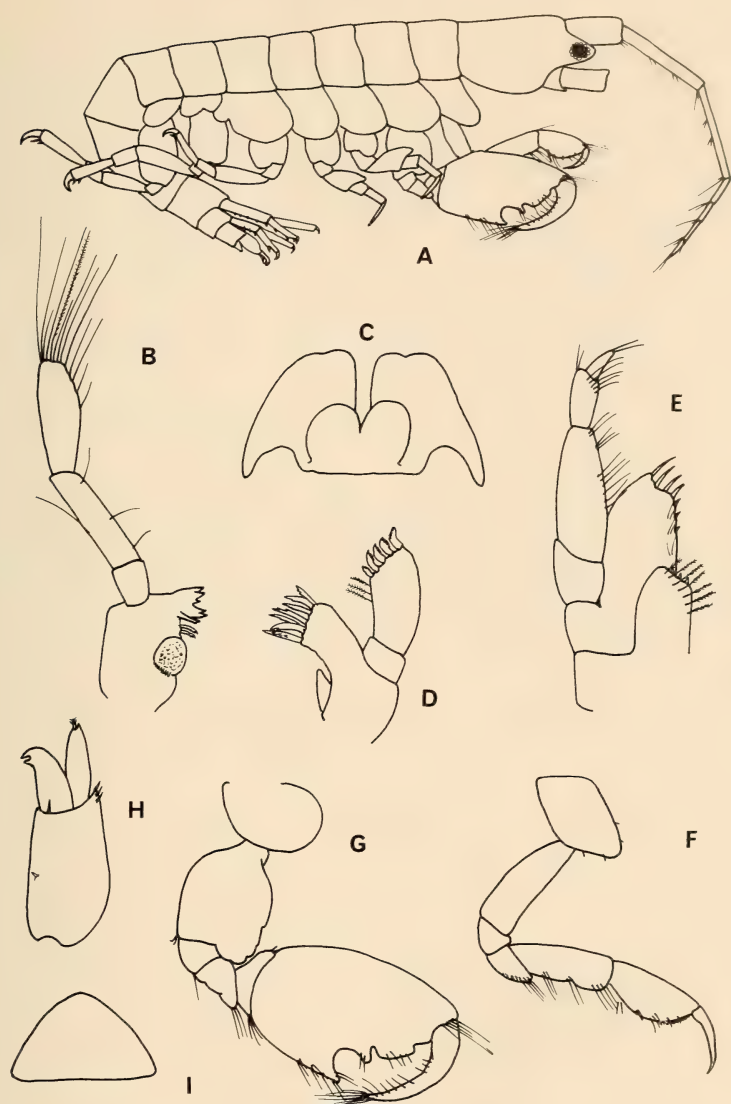


Fig. 11. *Parajassa chikoa* n. sp.

Male, 2,5 mm: A—lateral aspect; B—mandible; C—lower lip; D—maxilla 1; E—maxilliped; F—gnathopod 1; G—gnathopod 2; H—uropod 3; I—telson.

Coxae 1-4 rounded, subequal, 5 bilobed, 6 and 7 each half as long as 5; gnathopod 1 (Fig. 11F) subchelate, palm pectinate, defined by a single small spine, dactyl slightly exceeding palm; gnathopod 2 (Fig. 11G) powerfully subchelate, article 2 distally lobed, the lobe extending proximally as an anterior keel, 5 cup-shaped, embracing the very large article 6, palm oblique, subequal to hind margin, bearing a flat-topped tooth near finger hinge, a conical tooth proximal to it then a strong semicircular concavity preceding the defining tooth, dactyl moderately thickened, bearing a row of small setae posteriorly and a fascicle of long setae at its apex; article 4 of pereopods 1 and 2 with antero-distal corner expanded, dactyl long, slender; article 2 of pereopod 3 subcircular, article 6 bearing a distal spine; pereopods 4 and 5 somewhat larger than 3 but of similar structure.

Pleon and urosome flexed beneath pereon; pleonal epimera rounded; urosomal segments subequal in length, uropods 1-3 extending equally; peduncle of uropod 1 with five dorsal spines, inner ramus slightly exceeding outer, each with a strong apical spine, outer ramus also with three dorsal spines; peduncle of uropod 2 with three dorsal spines, each ramus with two dorsal and a terminal spine, inner ramus slightly longer than outer; peduncle of uropod 3 (Fig. 11H) twice length of rami, inner ramus tapering evenly, apex bearing a single minute seta, outer ramus terminally upturned to form a pair of non-articulate hooks (one specimen showed three hooks on the one uropod 3 and two on the other); telson triangular, entire, smooth.

*Holotype*: SAM A13218, male, 2.5 mm.

*Type locality*: SCD 99M; 34°33'S/24°01'E, 21 July 1959, depth 130 m, substrate rock.

*Relationships*: Of the four existing species in this genus *Parajassa pelagica* Leach differs from *P. chikoa* n. sp. by virtue of its minute 2-articulate flagellum of antenna 1, while *P. angularis* Shoemaker has distinctive setose first and second uropods. The other two species, *P. tristanensis* (Stebbing) and *P. gorgoniana* (Schellenberg) are closely allied to *P. chikoa* n. sp. but have only a single tooth on the palm of gnathopod 2 and smaller hooks on the outer ramus of uropod 3.

*Material*: SCD 99M(1), SCD 343Z(1). (Both ♂♂).

#### Family Leucothoidae

*Leucothoe ctenochir* K. H. Barnard, 1925

*Leucothoe ctenochir* K. H. Barnard, 1925: 342, pl. 34, fig. 8.

*Records*: SCD 93N(2), SCD 159W(15), SCD 172S(2); MB 13M(1), MB 23J(1), MB 28H(1), MB 54U(1).

*Distribution*: Endemic to east coast of South Africa.

*Leucothoe dolichoceras* K. H. Barnard, 1916

*Leucothoe dolichoceras* K. H. Barnard, 1916: 157, pl. 26, fig. 14.

*Records:* SCD 181R(1); SST 11R(1); 34°S/25°E/137 m, 32°S/28°E/93 m (K. H. Barnard 1916).

*Distribution:* Endemic, Natal to west coast of South Africa.

*Leucothoe richiardi* Lessona, 1865

*Leucothoe richiardi*: K. H. Barnard, 1916: 150.

*Leucothoe richiardi*: Sivaprakasam, 1967b: 385, fig. 2.

*Records:* SCD 24M(2), SCD 131X(1), SCD 159Q(1), SCD 181Q(1), SCD 204U(1), SCD 244F(1), SCD 310E(1), SCD 353H(1); SST 9D(1), SST 11Q(18); SST 19D(1), SST 24F(2), SST 29B(2), SST 37V(1); MB 23F(4), MB 40F(1); 34°S/25°E/138 m, 33°S/28°E/121 m (K. H. Barnard 1916).

*Distribution:* Mediterranean, India, South Africa.

*Leucothoe spinicarpa* (Abildgaard, 1789)

*Leucothoe spinicarpa*: Sivaprakasam 1967b: 384, fig. 1.

*Records:* SCD 41R(2), SCD 95E(1), SCD 115D(1), SCD 172T(12), SCD 198X(1), SCD 253F(1), SCD 300U(1), SCD 302W(1), SCD 366M(3), SCD 366W(1); LIZ 37P(3), LIZ 40A(1); MB 23X(2), MB 50P(3), MB 54U(8), MB 69T(1); TRA 55W(1); LLL 6W; 32°S/28°E/174 m, 33°S/28°E/91 m (K. H. Barnard 1916).

*Distribution:* Cosmopolitan.

Family **Liljeborgiidae***Liljeborgia consanguinea* Stebbing, 1888

*Liljeborgia consanguinea* Stebbing, 1888: 980, pl. 91.

*Records:* 35°S/20°E/565 m (Stebbing 1910a).

*Diagnosis:* Each of pleon segments 1–5 produced into a small but distinct mid-dorsal tooth; coxae 1–3 each with a denticle at both distal corners, coxa 4 serrate posteriorly; pleonal epimera 1 and 2 postero-distally produced into a small point, that of third pleonal epimeron larger and upturned with a small sinus above; telson 60% cleft, a single spine at apex of each lobe; palm of gnathopod 2 male smooth.

*Distribution:* Antarctica, southern Indian Ocean.

*Liljeborgia dubia* (Haswell, 1880)

*Eusirus dubius* Haswell, 1880: 331, pl. 30, fig. 3.

*Records:* SCD 24R(3), SCD 120C(1), SCD 216E(1), SCD 349S(1), SCD 353R(1), SCD 366R(3); SST 5H(1), SST 9G(1), SST 16R(5), SST 18X(1).

*Diagnosis:* Pleon segments 1 and 2 each with five dorsal teeth, 3 with a minute tooth between two rounded lobes, 4 and 5 each with a strong carinate dorsal tooth; coxa 4 with two teeth on hind margin; postero-distal corner of third pleonal epimeron acute, slightly upturned; telson cleft nearly to base, a long spine in a notch at apex of each lobe; palm of gnathopod 2 male with an acute distal tooth.

*Distribution:* Australia, New Zealand, South Africa.

*Liljeborgia epistomata* K. H. Barnard, 1932

*Liljeborgia epistomata* K. H. Barnard, 1932: 144, fig. 83; 1955: 89, fig. 44.

*Records:* SCD 110W(1), SCD 135M(1), SCD 141P(4), SCD 222J(1), SCD 225L(1), SCD 376K(1).

*Distribution:* Endemic, Natal to Saldanha Bay.

*Liljeborgia kinahani* (Bate, 1862)

*Liljeborgia kinahani:* Chevreux & Fage, 1925: 157, fig. 157.

*Records:* SCD 262K(1), SCD 356K(1); MB 23H(2), MB 87F(3).

*Diagnosis:* Pleon segments 1 and 2 dorsally tridentate, 3 smooth, 4 and 5 each with a single dorsal tooth; coxae 1–3 without distal teeth; coxa 4 not serrate posteriorly; pleonal epimera 1 and 2 postero-distally produced into a minute tooth, third pleonal epimeron with a small sinus above postero-distal tooth; telson cleft nearly to base, lobes divergent, a long spine arising from a notch in apex of each lobe; palm of gnathopod 2 male smooth.

*Distribution:* North Atlantic, South Africa.

*Liljeborgia palmata* n. sp.

Fig. 12

*Description of male* (6 mm): Head as long as first two pereon segments, rostrum acute, slightly downturned, half length of article 1 of antenna 1, eyes absent; antenna 1 as long as peduncle of antenna 2, article 1 considerably longer than 2 plus 3, flagellum 19-articulate, twice length of peduncle, accessory flagellum 10-articulate; flagellum of antenna 2 14-articulate, as long as terminal article of peduncle; mandible (Fig. 12A) with 3-articulate palp, articles 1 and 2 subequal, longer than 3, primary cutting edge with three large teeth and numerous serrations, secondary cutting edge of five large teeth, spine row of eight spines, molar redundant, represented by a few spines; inner plate of maxilla 1 tipped by a single seta, outer plate bearing eight long pectinate spines, palp bi-articulate with eight small spines lining inner edge and four small setae along outer margin; plates of maxilla 2 subequal; inner plate of maxilliped bearing five terminal setae, outer plate with a row of seven medial spines and seven submarginal setae, palp 4-articulate.

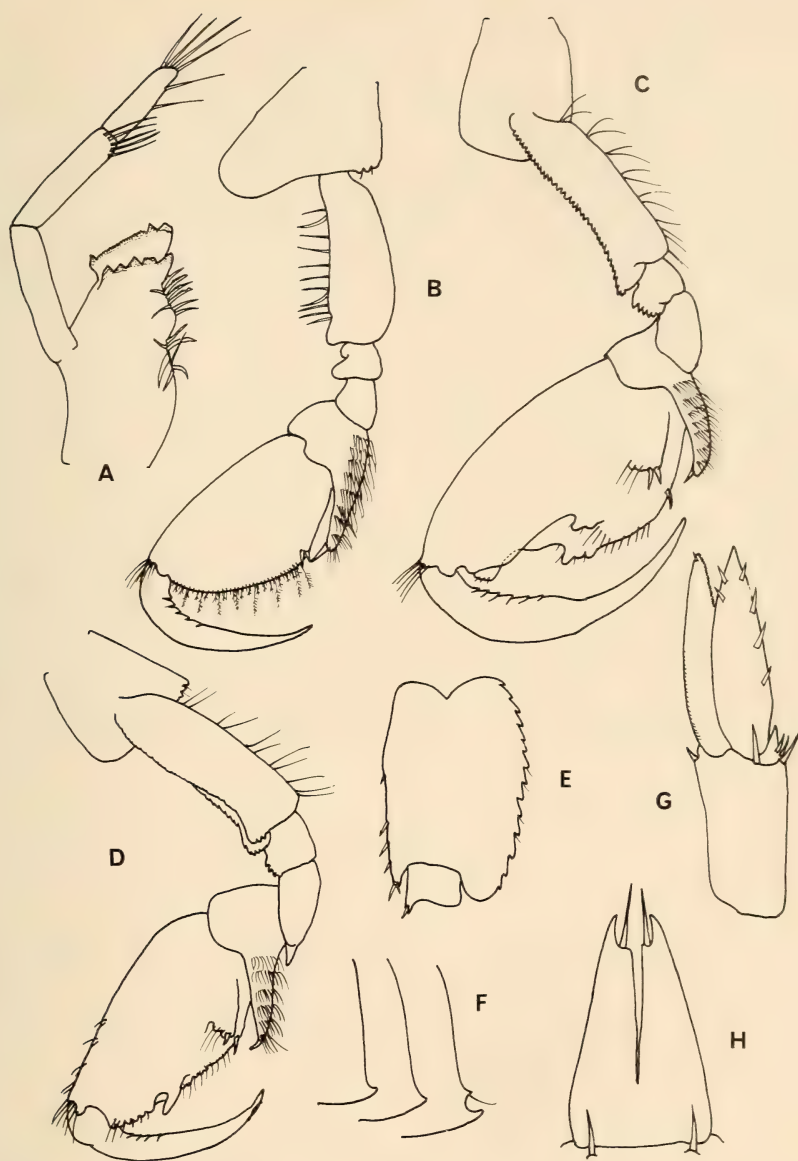


Fig. 12. *Liljeborgia palmata* n. sp.  
 Male, 6 mm: A—mandible; B—gnathopod 1; D—gnathopod 2; E—articles 2 and 3 of pereopod 5; F—pleonal epimera 1-3; G—uropod 3; H—telson.  
 Male, 10 mm: C—gnathopod 2 (inner aspect).

Coxae 1 and 2 each bearing two small postero-distal notches; gnathopod 1 (Fig. 12B) with a row of setae along anterior margin of article 2, articles 2 and 3 antero-distally lobed, 5 produced to protect 6 posteriorly, palm evenly convex, bearing alternating long and short setae, defined by two spines, dactyl bearing five proximal teeth; gnathopod 2 (Fig. 12D) larger than 1, article 2 bearing two serrate anterior keels which are distally produced into moderate lobes, article 3 with an antero-distal serrate lobe, article 6 tapering off from defining angle, palm irregularly toothed and varying greatly with age (Fig. 12C, D), dactyl with 4-6 proximal teeth, closing between defining spine and a spinose ridge arising from inner face of article 6; pereopods 1 and 2 slender; article 2 of pereopods 3-5 widened, posteriorly serrate, the serrations most marked on pereopod 5, where they number 14.

Pleonal tooth formula 1:1:0:1:1, the teeth on the first two segments appressed while those on segments 4 and 5 form carinae; postero-distal corner of pleonal epimera 1 and 2 produced into a small tooth, third pleonal epimeron with a semicircular concavity above postero-distal tooth and a second tooth bearing a single small seta above this (Fig. 12F); uropods extending about equally, peduncle of uropod 1 with a terminal spine, outer ramus marginally the shorter; uropod 2 with two dorsal spines on peduncle, outer ramus slightly the shorter; rami of uropod 3 (Fig. 12G) subequal, the outer naked but minutely pectinate on upper margin, the inner with four dorsal and two ventral spines; telson (Fig. 12H) 80% cleft, each lobe bearing a single strong seta in a subapical notch.

*Female*: Differing from the male only in the possession of brood plates and in the structure of gnathopod 2, which is slightly larger than gnathopod 1, but of the same structure.

*Holotype*: SAM A13221, male, 6 mm.

*Type locality*: SST 29G, 34°40'S/21°39'E, 21 June 1972, depth 80 m, substrate coarse shelly sand.

*Relationships*: Males of this species can easily be distinguished by the unusual shape of the palm of gnathopod 2 and by the serrate articles 2 and 3 of gnathopod 2. The female is similar to that of *Liljeborgia hansonii* Hurley, which is unfortunately known only from the female. However, Hurley describes his species as bearing red-brown eyes, whereas *L. palmata* n. sp. has no eyes.

*Material*: SST 16S(4), SST 29G(2).

### *Listriella sinuosa* n. sp.

Fig. 13

*Description of male* (8 mm): Head only slightly longer than first pereon segment, postantennal angle smoothly rounded, eyes small, round, black; antenna 1 shorter than peduncle of antenna 2, articles 1 and 2 subequal, 3 very short,

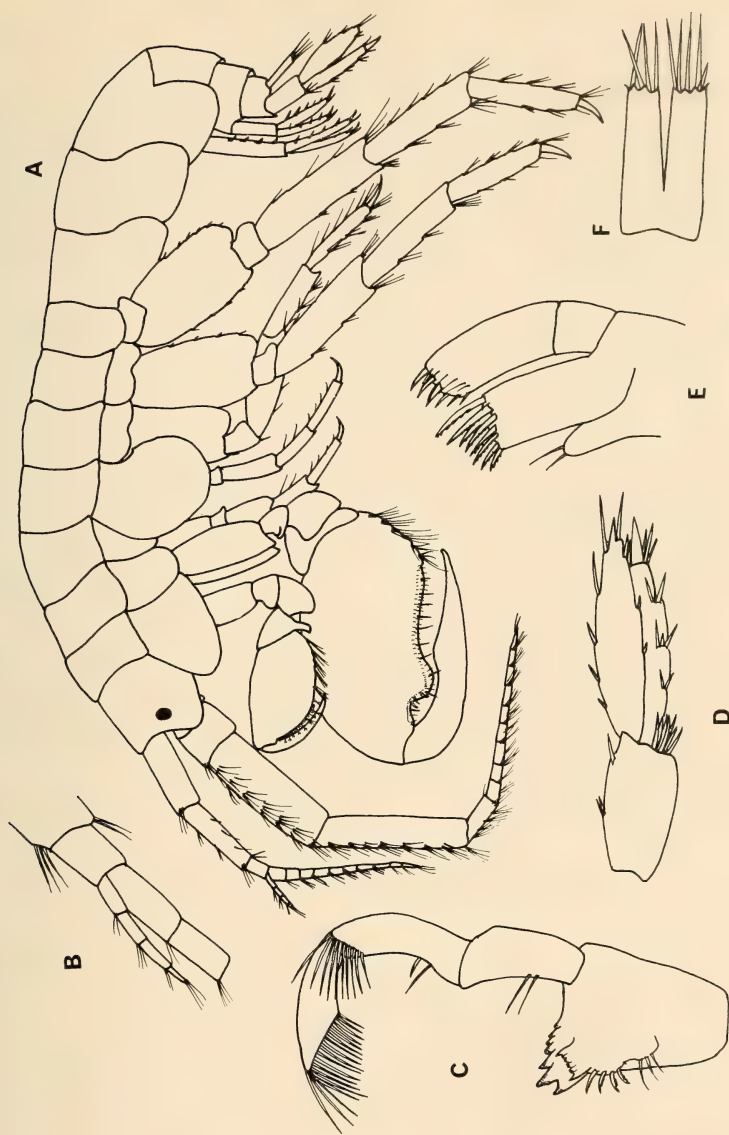


Fig. 13. *Listriella sinuosa* n. sp.

Male, 8 mm: A—lateral aspect; B—accessory flagellum; C—mandible; D—uropod 3; E—maxilla 1; F—telson.

flagellum 10-articulate, accessory flagellum (Fig. 13B) 4-articulate; antenna 2 as long as pereon, flagellum 10-articulate; mandible (Fig. 13C) with broad 3-articulate palp, articles 2 and 3 bearing rows of strong setae distally, incisor strongly chitinized, primary cutting edge with seven strong teeth, spine row of four spines, molar degenerate, represented by three setae; maxilla 1 (Fig. 13E) with two apical setae on inner plate and eight strong pectinate spines on outer plate, palp bi-articulate, tipped by three short spines and a row of short setae;

inner plate of maxilliped with three setae along inner margin and a spine and two setae at apex, outer plate with seven graduated spines along medial margin and three setae distally, palp 4-articulate.

Coxa 1 produced anteriorly, coxae 2 and 3 rounded, 4 nearly twice as long as 3, excavate posteriorly; gnathopod 1 much smaller than 2, palm evenly convex, lined with alternating long and short setae; gnathopod 2 very large, article 2 with two anterior keels, palm very long, bearing three small spines on a rounded convexity near finger hinge, otherwise bearing scattered short setae; pereopods 1 and 2 slender; article 2 of pereopods 3–5 widened; pereopods 4 and 5 very elongate, hind margins of article 2 feebly serrate.

Pleonal epimera all smoothly rounded postero-distally; uropod 1 with a row of about five dorsal peduncular spines, rami equal, spinose dorsally and apically; uropod 2 without peduncular spines, otherwise resembling uropod 1; uropod 3 (Fig. 13D) extending well beyond 1 and 2, peduncle bearing three dorsal and several ventral spines, rami subequal, the outer with a spiniform second article; telson (Fig. 13F) 80% cleft, each lobe bearing four large spines, a smaller spine and a minute seta across its truncated apex.

*Holotype*: SAM A13215, male, 8 mm, unique.

*Type locality*: SST 41P, 34°25'S/21°28'E, 21 June 1972, depth 50 m, substrate green mud.

*Relationships*: All other species in this genus, with the exception of *L. lindae* Griffiths, have a bi-articulate accessory flagellum. *L. sinuosa* can be distinguished from *L. lindae* by virtue of its smoothly rounded pleonal epimera and strongly setose telson, as well as by the structure of gnathopod 2.

### Family Lysianassidae

#### *Amaryllis macrophthalma* Haswell, 1880

*Amaryllis macrophthalma*: J. L. Barnard, 1972a: 262–269, figs 156–158.

*Records*: SCD 172X(5), SCD 181L(1), SCD 198C(3), SCD 204W(3), SCD 227S(2), SCD 244Q(3), SCD 266S(3), SCD 300V(2), SCD 321V(1), SCD 379K(29); SST 16V(7), SST 29M(1); LIZ 17G(1), LIZ 29N(1), LIZ 37M(2); MB 16D(1), MB 20U(1), MB 40H(1), MB 50Y(1), MB 66N(1), MB 73L(3); KNY 57C(C), KNY 171H; TRA 55X(1), TRA 58X(1); LLL 6G; E 231A; KKN 43E; 'Algoa Bay', 33°S/27°E/112 m (K. H. Barnard 1916); 33°S/26°E/18–29 m (Stebbing 1908a).

*Distribution*: Cosmopolitan in southern hemisphere.

#### *Aristias symbiotica* K. H. Barnard, 1916

*Aristias symbiotica* K. H. Barnard, 1916: 121.

*Records*: SCD 55C(14).

*Distribution*: Endemic, Moçambique to South West Africa.

*Cyphocaris faurei* K. H. Barnard, 1916

*Cyphocaris faurei* K. H. Barnard, 1916: 117, pl. 26, fig. 4.

*Records*: 33°S/28°E/450–550 m (K. H. Barnard 1916).

*Diagnosis*: First pereon segment greatly enlarged and swollen anteriorly but not projecting over head; coxa 4 anteriorly and distally strongly convex, posterior margin concave on either side of a medial tooth; article 2 of pereopod 3 produced posteriorly as a curved spiniform process which extends to tip of article 5, both margins of the process entire; telson as long as urosome, 75% cleft, apices entire, lacking spines.

*Distribution*: Cosmopolitan, bathypelagic.

*Euonyx conicurus* K. H. Barnard, 1955

*Euonyx conicurus* K. H. Barnard, 1955: 80, fig. 38.

*Records*: SCD 102G(1), SCD 160C(3).

*Diagnosis*: Eyes present; article 1 of antenna 1 prominently lobed distally; pleon segment 4 depressed at base then raised posteriorly into a large forward-directed triangular carina.

*Distribution*: Endemic to south coast of South Africa.

*Hippomedon onconotus* (Stebbing, 1908)

*Tryphosa onconotus* Stebbing, 1908: 65, pl. 35.

*Records*: SCD 104V(1), SCD 104W(1), SCD 106U(1), SCD 120D(2), SCD 202F(3), SCD 204V(1), SCD 211X(1), SCD 216N(22), SCD 225M(2), SCD 235U(5), SCD 343V(6), SCD 350N(1), SCD 391L(4), SCD 392S(5); SST 18Y(2), SST 24R(1), SST 62J(3), SST 63M(2), SST 65H(1), SST 67P(1), SST 68Q(3), SST 70P(1), SST 74E(1).

*Distribution*: Endemic to South Africa.

*Ichnopus taurus* Costa, 1853

*Ichnopus macrobetomma* Stebbing, 1917: 38, pl. 96 A.

*Ichnopus taurus*: Chevreux & Fage, 1925: 48, fig. 30.

*Records*: 33°S/27°E/91 m (K. H. Barnard 1916); 33°S/28°E/47 m (Stebbing 1917).

*Diagnosis*: Eyes very large; antennae slender; upper lip slightly produced in front of epistome; mandibular molar laminate, palp attached level with molar; gnathopod 1 simple, slender, dactyl strongly spinose posteriorly; dactyl of gnathopod 2 minute; gills plated on both sides; pereopod 5 much longer than 4; inner ramus of uropod 2 constricted; telson deeply cleft.

*Distribution*: Mediterranean, North Atlantic, South Africa.

*Lepidepecreum twalae* n. sp.

Fig. 14

*Description of female* (2,5 mm): Head dorsally shorter than first pereon segment, produced below antenna 1 into a large apically rounded lobe, eyes present but almost colourless in preserved animal; article 1 of antenna 1 (Fig. 14B) laterally flattened but not dorsally carinate, almost as tall as head, articles 2 and 3 much smaller, flagellum 5-articulate, shorter than peduncle, accessory flagellum small, bi-articulate; antenna 2 (Fig. 14C) not much longer than 1, article 3 elongate, flagellum 3-articulate, about as long as terminal article of peduncle; mandible (Fig. 14D) with smooth incisor, spine row of three spines, molar setulose, of moderate size, palp 3-articulate, attached proximal to molar, article 2 very elongate, article 3 finely setulose throughout and bearing three lateral and three terminal setae; maxilla 1 (Fig. 14E) with bi-articulate palp, article 2 terminating in 6 blade spines and a small seta, outer plate bearing ten powerful serrate spines, inner plate with two setae at its tip; plates of maxilla 2 (Fig. 14F) subequal; maxilliped (Fig. 14G) with 4-articulate palp, outer plate bearing 12 nodular spines along medial margin and an oblique row of five larger spines submarginally, inner plate with two distal spines and six medial plumose setae.

Pereon dorsally smooth, coxae 1–4 all visible, elongate and distally touching their partners on the opposite side, coxa 4 excavate posteriorly, 5–7 subcircular; gnathopod 1 (Fig. 14I) subchelate, palm transverse, defined by two large spines, dactyl with accessory tooth; gnathopod 2 (Fig. 14H) chelate, article 5 slightly longer than 6, both distally setulose; article 2 of pereopods 1 and 2 slender; article 2 of pereopods 3–5 rotund, article 4 produced into a postero-distal lobe.

Pleon segments 1–3 dorsally smooth, pleonal epimera postero-distally rounded; pleon segment 4 bearing a large dorsal triangular carina; uropods 1–3 all projecting equally; uropod 3 (Fig. 14K) with equal rami, inner ramus with three large spines on dorsal margin, outer ramus with two spines at apex of article 1, article 2 triangular, tapering evenly; telson (Fig. 14L) twice as long as wide, 70% cleft, each lobe tipped by a small spine and with a short mid-dorsal plumose seta.

*Holotype*: SAM A13220, female, 2,5 mm, unique.

*Type locality*: SCD 343W, 36°39'S/23°41'E, 11 February 1962, depth 121 m, substrate shelly sand.

*Relationships*: This species can be distinguished from most others in the genus by the lack of carinae on the pereon and on article 1 of antenna 1. These features are also absent in *Lepidepecreum typhlops* Bonnier and *L. cingulatum* K. H. Barnard, but of these the former lacks eyes and the latter does not have a carina on the fourth pleon segment.

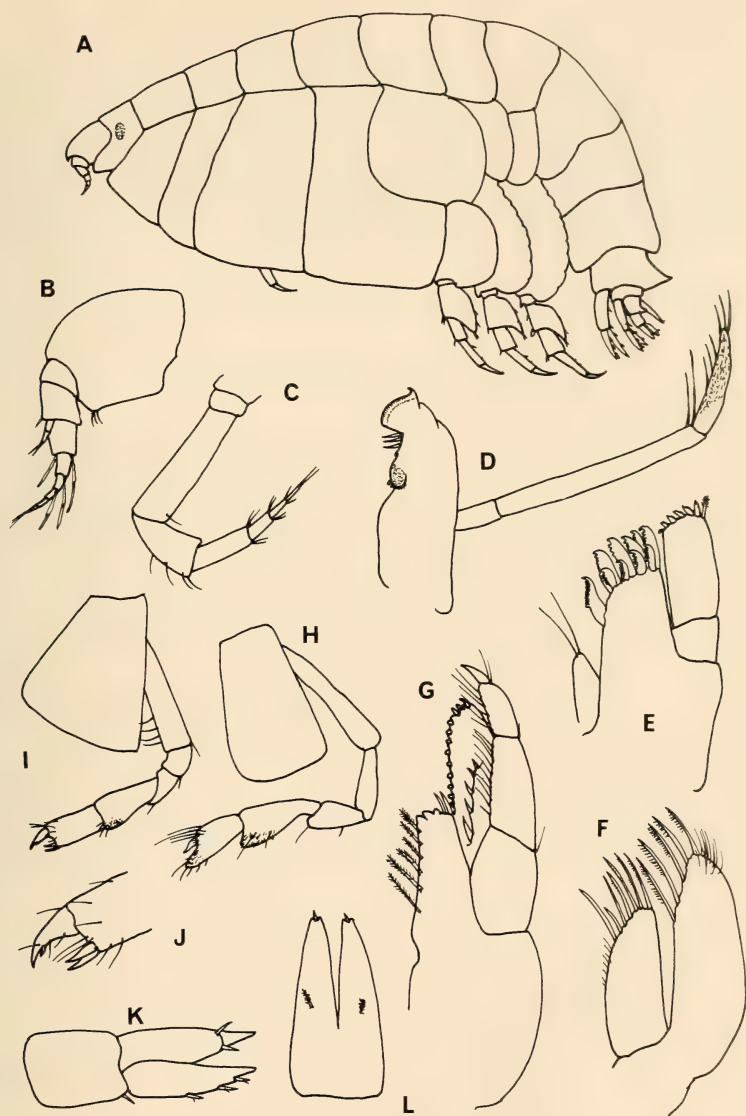


Fig. 14. *Lepidepocentrum twalae* n. sp.

Female, 2,5 mm: A—lateral aspect; B—antenna 1; C—antenna 2; D—mandible;  
 E—maxilla 1; F—maxilla 2; G—maxilliped; H—gnathopod 2; I—gnathopod 1;  
 J—enlargement of palm of gnathopod 1; K—uropod 3; L—telson.

*Lysianassa ceratina* (Walker, 1889)

*Lysianassa cubensis*: K. H. Barnard, 1916: 120.

*Lysianassa ceratina*: Chevreux & Fage, 1925: 42, fig. 23.

*Records*: SCD 160D(9), SCD 173V(2), SCD 211Y(3), SCD 230E(1), SCD 235Z(1), SCD 310D(28), SCD 373N(15), SCD 374J(8); SST 47C(3), SST 47D(3); LIZ 25M(1), LIZ 32Z(1); MB 40G(1), MB 54Y(1), MB 57A(4), MB 73N(4); KNY 166K; BRE 144C(1); L 476; X 22D; Y 12H; E 231; ZZ 30; T 13K; KN 2E; SS 55A; 33°S/27°E/120 m, 33°S/28°E/78 m (K. H. Barnard 1916); Port Elizabeth, East London (K. H. Barnard 1940).

*Distribution*: Mediterranean, Atlantic, Indian Ocean.

*Lysianassa variegata* (Stimpson, 1855)

*Lysianassa variegata*: Stebbing, 1888: 682, pl. 23.

*Records*: SCD 10U(2), SCD 148L(3), SCD 179M(1), SCD 181Y(1), SCD 189D(1), SCD 204T(1), SCD 262L(1), SCD 312S(2), SCD 338D(20), SCD 370M(14), SCD 376M(8), SCD 388E(1); SST 16W(1), SST 29N(1); LLL 6F; 33°S/26°E/18–29 m (Stebbing 1910a).

*Distribution*: Africa south of the equator.

*Orchomene plicata* (Schellenberg, 1925)

*Orchomenopsis chilensis* Schellenberg 1925: 119, fig. 3. K. H. Barnard 1925: 330.

*Orchomenella plicata*: K. H. Barnard, 1940: 440.

*Records*: SCD 20K(A), SCD 24G(3), SCD 287A(88); SST 65J(8); MB 28E(2), MB 61T(1), MB 73P(3); KNY 57C; Plettenberg Bay (K. H. Barnard 1940—as *Microlysias xenoceras*).

*Distribution*: Cosmopolitan.

*Phoxostoma algoense* K. H. Barnard, 1925

*Phoxostoma algoense* K. H. Barnard, 1925: 323, pl. 34, fig. 2.

*Records*: Algoa Bay, 65 m (K. H. Barnard 1925).

*Diagnosis*: Eyes large, meeting on top of head; body lacking carinae but with scattered setules; mouthparts forming a conical bundle; mandible slender, molar obsolete, palp attached proximal to molar; palp of maxilliped exceeding outer plate, article 4 small; gnathopod 1 simple, article 6 longer than 5; gnathopod 2 minutely chelate; third pleonal epimeron quadrate, telson deeply insinuate.

*Distribution*: Endemic to South Africa.

*Socarnopsis crenulata* Chevreux, 1910

*Socarnopsis crenulata*: K. H. Barnard, 1916: 124. Chevreux & Fage, 1925: 49, figs 31, 32.

*Records*: SCD 81E; SST 17Z(1), SST 29P(8), SST 32K(4), SST 34M(2), SST 45H(1); 33°S/27°E/120 m (K. H. Barnard 1916).

*Diagnosis*: Eyes large; upper lip and epistome together produced forwards into a lobe; mandibular molar ridged, palp attached proximal to molar, its second article very elongate; gnathopod 1 simple; dactyl of gnathopod 2 minute; gills plaited on both sides; outer ramus of uropod 3 with a minute second article; telson 80% cleft.

*Distribution*: Mediterranean, Atlantic, South Africa.

*Stomacontion prionoplax* Monod, 1937

Fig. 15

*Stomacontion prionoplax* Monod, 1937: 6, figs. 1-6.

*Records*: SCD 179N(1), SCD 244T(1).

*Diagnosis*: Coxa 1 rectangular, projecting over the side of the head and partly obscuring the eye; gnathopod 1 simple, article 5 as wide as long, dactyl powerful; articles 2 and 3 of pereopod 5 strongly lobed anteriorly; pleon segment 4 bearing a triangular dorsal carina; uropod 3 lacking rami or rami vestigial.

*Distribution*: This is the first record of this species from southern Africa. It was previously known only from the Suez Canal.

*Remarks*: The present material so closely resembles Monod's that I have no hesitation in equating the two. Of particular note is the identical structure of the mouthparts, particularly the unusual outer plate of the maxilliped, and of pereopod 5. The specimen figured here is much larger (5 mm) than Monod's and has smaller eyes. My other specimen, however, is of comparable size to Monod's and has similar sized eyes. The only significant feature distinguishing the South African form is the absence of the obscure vestigial ramus of uropod 3 described by Monod. The apparent variability of this feature, in addition to other intergrading features, renders the maintenance of any distinction between the genera *Stomacontion* and *Acontiosoma* superfluous, at least as they are defined at present, and the two genera should be united.

*Trischizostoma remipes* Stebbing, 1908

*Trischizostoma remipes* Stebbing, 1908a: 61, pl. 34. K. H. Barnard, 1925: 321.

*Records*: SCD 159P(10); SST 47A(2); 33°S/28°E/86 m, 34°S/23°E/58 m (Stebbing 1908a); 'Cape Point to East London' (K. H. Barnard 1916).

*Distribution*: Endemic, Natal to False Bay.

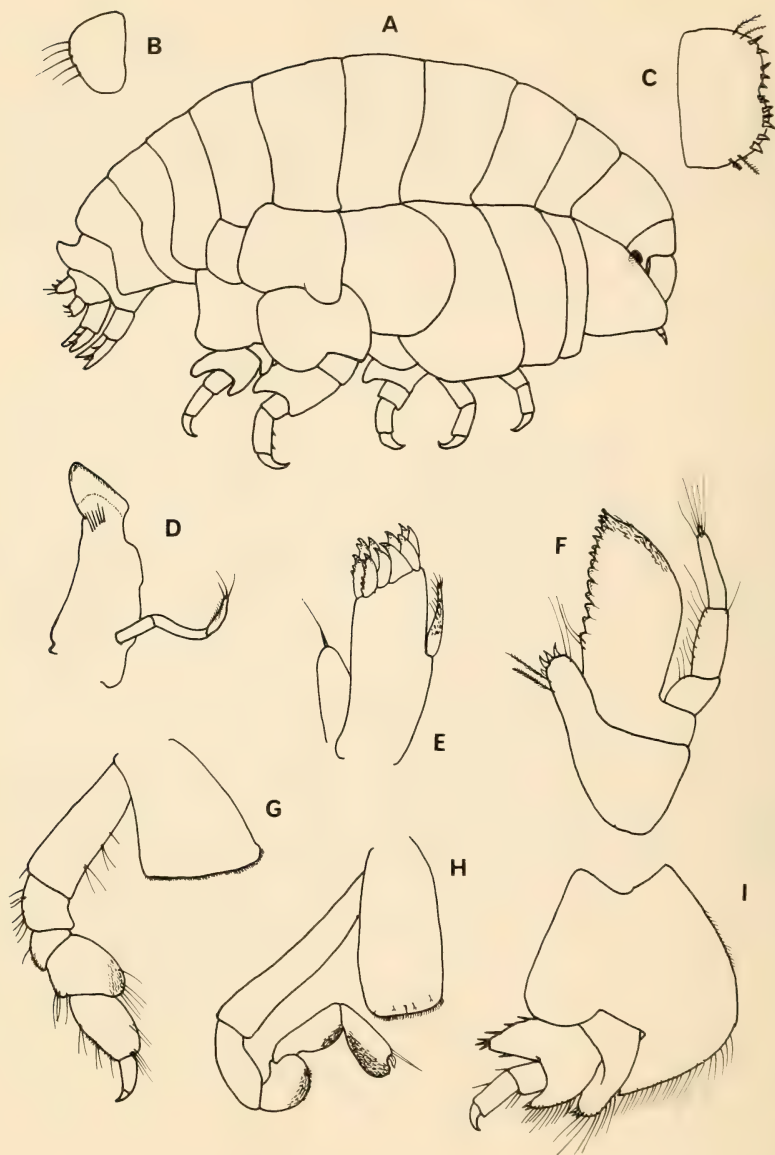


Fig. 15. *Stomacontion prionoplax* Monod, 1937  
 Male, 5 mm: A—lateral aspect; B—uropod 3; C—telson; D—mandible;  
 E—maxilla 1; F—maxilliped; G—gnathopod 1; H—gnathopod 2; I—pereiopod 5.

*Trischizostoma serratum* K. H. Barnard, 1925

*Trischizostoma serratum* K. H. Barnard, 1925: 320, pl. 34, fig. 1.

*Records*: SCD 366L(1).

*Distribution*: Endemic, Natal to False Bay.

*Tryphosella africana* K. H. Barnard, 1955

*Tryphosella africana* K. H. Barnard, 1955: 81.

*Records*: SCD 135E, SCD 198B(38), SCD 227T(1), SCD 236B(1), SCD 273F(3), SCD 338S(1), SCD 345W(9), SCD 348Z(11), SCD 349P(1), SCD 356U(2), SCD 376D(3), SCD 381U(1); SST 16X(1), SST 24S(2), SST 34L(1), SST 45G(2), SST 65C(5).

*Diagnosis*: Lateral lobes of head moderately acute, eyes absent; article 4 of antenna 1 male broadly oval, width more than half length; article 6 of gnathopod 1 ovoid, palm oblique, equal to hind margin; third pleonal epimeron greatly produced postero-distally into an acute upturned tooth; pleon segment 4 with a rounded dorsal hump; telson tapering evenly, bearing two pairs of dorsal spines and a spine and seta at apex of each lobe.

*Distribution*: Endemic to South Africa.

*Tryphosella normalis* K. H. Barnard, 1955

*Tryphosella normalis* K. H. Barnard, 1955: 80, fig. 39.

*Records*: SCD 110X(4), SCD 173Z(2), SCD 192Z(7); SST 5C(1), SST 18Z(4), SST 24T(1), SST 32L(1), SST 34D(3), SST 52R(3), SST 54F(1), SST 60L(2), SST 74F(1), SST 78G(2).

*Distribution*: Endemic, Natal to South West Africa.

*Uristes sulcus* n. sp.

Fig. 16

*Description of female* (3 mm): Head dorsally shorter than first two pereon segments, lateral lobes subacute, extending half length of article 1 of antenna 1; eyes obscure, composed of about seven scattered ommatidia; article 1 of antenna 1 large, longer than 2 and 3 together, flagellum 6-articulate, the first segment much the largest, accessory flagellum 3-articulate; antenna 2 exceeding 1, flagellum 9-articulate; mandible (Fig. 16B) with smooth heavily chitinated incisor, spine row of three spines, molar large, oval, ridged, palp 3-articulate, attached level with distal margin of molar; maxilla 1 (Fig. 16C) with two plumose setae at apex of inner plate, nine strong serrate spines at tip of outer plate, palp bi-articulate, terminating in nine small spine-teeth; palp of maxilliped (Fig. 16D)

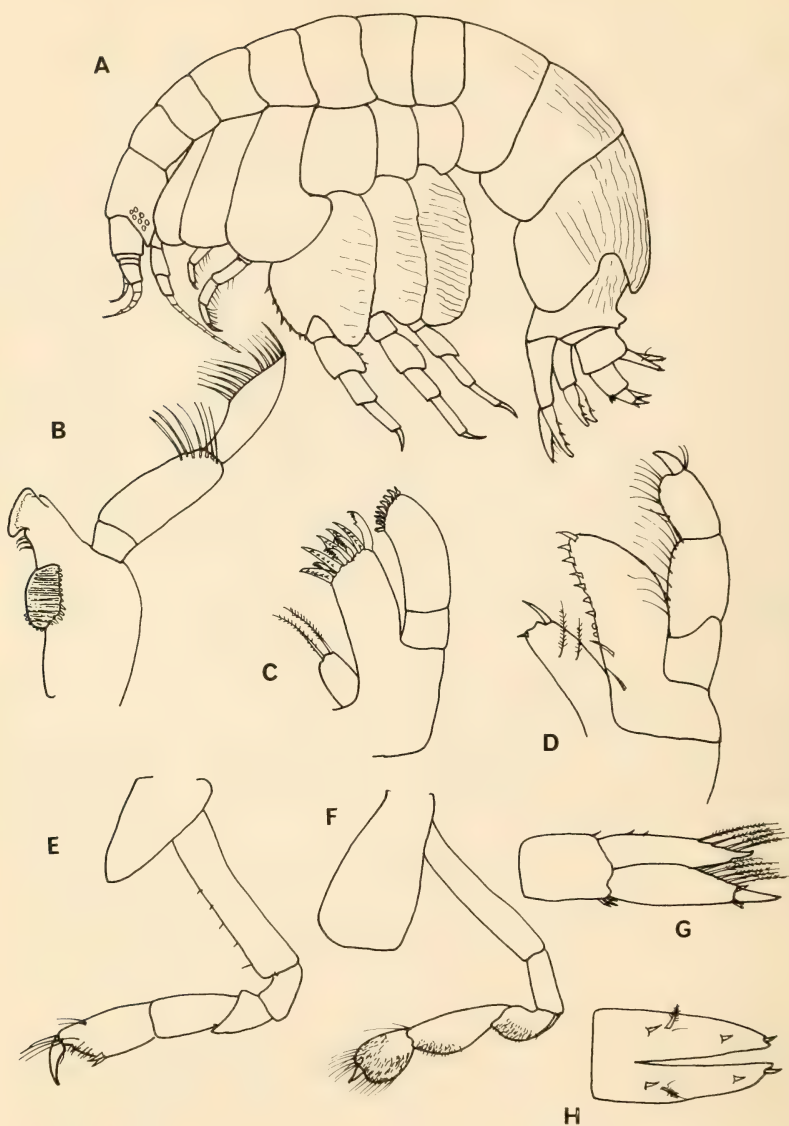


Fig. 16. *Uristes sulcus* n. sp.  
 Female, 3 mm. A—lateral aspect; B—mandible; C—maxilla 1; D—maxilliped;  
 E—gnathopod 1; F—gnathopod 2. Male, 4 mm: G—uropod 3; H—telson.

4-articulate, article 2 slightly longer than 1, article 4 small, outer plate with a row of nine spines along medial edge, inner plate bearing two plumose setae and two terminal spines.

Coxa 1 tapering evenly, about 80% length of coxa 2 which is rectangular and expanded somewhat distally; gnathopod 1 (Fig. 16E) subchelate, article 6 slightly longer than 5, palm oblique and subequal to hind margin, defined by two strong spines, dactyl without strong accessory tooth; gnathopod 2 (Fig. 16F) with setulose distal articles, 6 shorter than 5, palm transverse, dactyl small, partially concealed by setae; pereopods 1 and 2 slender; article 2 of pereopods 3-5 large, oval, bearing successively more obvious horizontal ridges.

Pleon segments 1-3 large, the integument bearing numerous longitudinal furrows and ridges, these being particularly obvious on the dorsal surface of pleon segment 3; pleonal epimera smoothly rounded; postero-dorsal section of pleon segment 3 produced as a hood-like lobe arching over proximal portion of pleon segment 4; pleon segment 4 with a small dorsal carina distally; outer ramus of uropod 1 slightly the longer, bearing three dorsal spines, inner ramus with two dorsal spines; outer ramus of uropod 2 with two dorsal spines, inner ramus not constructed, bearing a single medio-dorsal spine; peduncle of uropod 3 with a single dorsal spine and three ventral spines, rami naked, lanceolate, inner equal to article 1 of the outer; telson 80% cleft, a dorsal seta, two dorsal spines and a terminal spine to each lobe.

*Male:* The male of this species differs from the female by virtue of its longer second antennae, which reach half the length of the pereon, by the slightly larger carina on pleon segment 4 and by the setose third uropods (Fig. 16G).

*Holotype:* SAM A13224, male, 4 mm.

*Type locality:* SCD 230D, 34°04'S/23°26'E, 29 November 1960, depth 43 m, substrate yellow sand.

*Relationships:* J. L. Barnard (1962), in his revision of the genus *Uristes*, has drawn into it species previously assigned to some five other genera. The genus now contains species in which the condition of gnathopod 1 ranges from simple through to fully subchelate. *Uristes sulcus* n. sp. falls into that section, having an oblique, well-defined palm of gnathopod 1. It can be distinguished from others in that group by the presence of eyes and by the rounded pleonal epimeron, as well as by virtue of the unusual ridging on the pereopods and pleon from which its name has been derived.

*Material:* SCD 230D(2); SST 29L(1), SST 37X(2).

*Uristes natalensis* K. H. Barnard, 1916

*Uristes natalensis* K. H. Barnard, 1916: 126.

*Records:* 33°S/27°E/110 m (K. H. Barnard 1916).

*Distribution:* Endemic to south and east coasts of South Africa.

Family **Ochlesidae***Ochlesis lenticulosus* K. H. Barnard, 1940

*Ochlesis lenticulosus* K. H. Barnard, 1940: 447, fig. 23.

*Records*: SCD 244G(1); SST 11V(4).

*Distribution*: Endemic, Natal to False Bay.

*Ochlesis levetzowi* Schellenberg, 1953

*Ochlesis levetzowi* Schellenberg, 1953: 115, fig. 4. J. L. Barnard, 1969*b*: 372, fig. 134a.

*Records*: SCD 308G(5).

*Distribution*: Endemic, south coast of South Africa to South West Africa.

Family **Oedicerotidae***Periocolodes longimanus* (Bate & Westwood, 1868)

*Periocolodes longimanus*: Chevreux & Fage, 1925: 162, figs 163, 164.

*Records*: SCD 115E(1), SCD 122H(1), SCD 128T(1), SCD 135C(1), SCD 198V(6), SCD 202G(1), SCD 211W(3), SCD 225K(2), SCD 227X(1), SCD 244L(2), SCD 257K(5), SCD 267K(1), SCD 273J(3), SCD 276N(1), SCD 278H(7), SCD 282T(2), SCD 285M(2), SCD 329Z(1), SCD 332T(2), SCD 338F(18), SCD 339S(1), SCD 343X(1), SCD 345X(1), SCD 368R(1), SCD 376J(3), SCD 379P(3), SCD 381T(1), SCD 383S(1), SCD 391M(5); SST 24K(4), SST 29K(1), SST 32H(1), SST 34G(2), SST 40T(2), SST 45C(3), SST 52S(5), SST 54F(1), SST 56R(1), SST 60K(1), SST 61L(2), SST 63P(1), SST 65F(7), SST 67N(1), SST 73H(1), SST 76N(1), SST 78E(1), SST 81C(1).

*Distribution*: Mediterranean, Atlantic, Indian Ocean.

*Westwoodilla manta* n. sp.

Fig. 17

*Description of male* (6 mm): Head as long as first three pereon segments, rostrum almost half length of head (Fig. 17A), rod-like in shape, not deflexed, its apex smoothly rounded; eyes dorsally coalesced, situated at apex of rostrum; post-antennal angle of head rounded; antenna 1 slightly exceeding peduncle of antenna 2, flagellum 14-articulate; antenna 2 as long as pereon, flagellum 59-articulate; mandible (Fig. 17B) with 3-articulate palp, second article setose, moderately curved, article 3 subequal to 2, article 1 short, incisor of mandible not toothed but strongly chitinated, lacinia mobilis consisting of a small flattened plate, spine row of three spines, molar large, weakly ridged.

Coxa 1 marginally setose, distally expanded and produced forwards as a

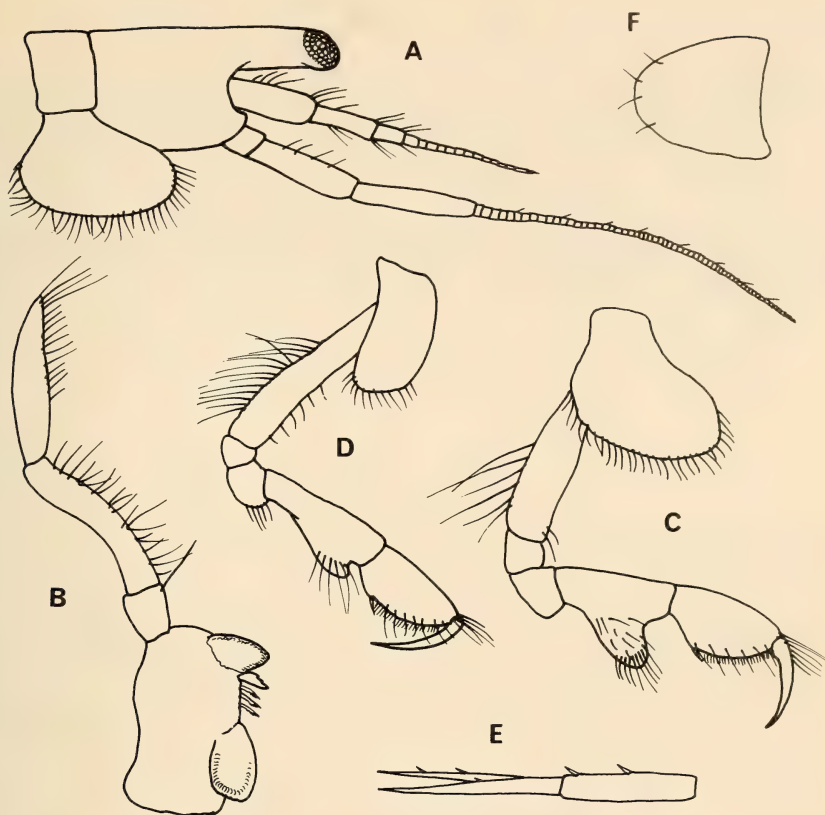


Fig. 17. *Westwoodilla manta* n. sp.  
Male, 6 mm: A—head; B—mandible; C—gnathopod 1; D—gnathopod 2;  
E—uropod 3; F—telson.

broad lobe; gnathopod 1 subchelate (Fig. 17C), article 5 moderately lobed, the lobe not protecting article 6 posteriorly, palm oblique, bearing alternating long and short setae, defined by a single small spine; coxa 2 rectangular; article 5 of gnathopod 2 (Fig. 17D) less strongly lobed than that of gnathopod 1, the lobe projecting at right-angles, not protecting article 6, palm oblique, setose, defined by a small spine; coxae 3 and 4 oval, 4 not excavate posteriorly, coxa 5 bilobed; pereiopods 1 and 2 slender, articles 4–6 strongly setose posteriorly, dactyl powerful, longer than article 6; pereiopods 3–5 successively larger, 5 very elongate.

Pleonal epimera smoothly rounded postero-distally; uropods 1–3 very slender, projecting equally, in each case outer ramus fractionally the shorter; telson (Fig. 17F) smoothly rounded, bearing four small setae distally.

*Holotype*: SAM A13223, male, 6 mm, unique.

*Type locality:* SCD 24W, 34°07'S/23°23'E, 26 May 1958, depth 46 m, substrate rock.

*Relationships:* The very elongate straight rostrum of this species is unusual. Most other members of the genus show a deflexed rostrum seldom extending to the tip of article 1 of antenna 1. Exceptions to this norm include *Westwoodilla acutifrons* Gurjanova, *W. longidactyla* Carausu and *W. rectirostris* Chevreux. However the rostrum of *W. acutifrons*, as the name suggests, terminates acutely and the eyes are medial rather than terminal. In *W. longidactyla* the eyes occupy the whole rostrum and the flagellum of antenna 1 does not exceed the length of articles 2 plus 3 of the peduncle. *W. rectirostris* bears the closest resemblance to *W. manta* n. sp. but differs from it by having longer antennae and the tip of the rostrum produced into an acute-tipped upturned process.

### Family Paramphithoidae

#### *Epimeria cornigera* (Fabricius, 1779)

*Epimeria cornigera:* Chevreux & Fage, 1925: 191, figs 198–200.

*Records:* 33°S/28°E/550 m (K. H. Barnard 1916).

*Diagnosis:* Pereon segment 7 (and sometimes 6) and pleon segments 1–3 each bearing a pronounced dorsal carina flanked by a pair of subdorsal ridges; pleon segment 4 bearing a strong dorsal carina terminating in an acute tooth; coxae 1–5 all terminating acutely; third pleonal epimeron with an accessory tooth on posterior margin above the acute postero-distal corner.

*Distribution:* North Atlantic, Mediterranean, South Africa.

### Family Pardaliscidae

#### *Nicippe tumida* Bruzelius, 1859

*Nicippe tumida:* J. L. Barnard, 1959b: 39–40, figs 1, 2.

*Records:* SCD 95K(1).

*Diagnosis:* Article 2 of antenna 1 shorter than article 1; gnathopods slightly subchelate, articles 5 and 6 stout, 5 with a large posterior lobe, shorter than 6, palm undefined; article 2 of pereopods 3–5 not inflated; pleon segment 4 bearing two contiguous small dorsal teeth; telson deeply cleft.

*Distribution:* Cosmopolitan.

#### *Pardisynopia anacantha* (K. H. Barnard, 1925)

*Halice anacantha* K. H. Barnard, 1925: 347, pl. 34, fig. 12.

*Pardisynopia anacantha:* J. L. Barnard, 1969b: 400.

*Records:* SCD 343Y(4); SST 17Y(2).

*Diagnosis:* Article 2 of antenna 1 shorter than article 1; flagellum of antenna 1

fully segmented, article 1 less than half length of peduncular article 1, accessory flagellum 2-articulate, basal article as long as articles 1–3 of primary flagellum; eyes absent; gnathopods simple; pereon and pleon without any dorsal teeth; third pleonal epimeron postero-distally quadrate; telson twice as long as broad, cleft nearly to base, lobes strongly dehiscent, their apices bifid.

*Distribution:* Endemic to South Africa.

*Remarks:* The above observations on the condition of antenna 1 confirm J. L. Barnard's provisional placing of this species in *Pardisynopia* (J. L. Barnard 1969b).

### Family Phoxocephalidae

#### *Mandibulophoxus stimpsoni* (Stebbing, 1908)

*Pontharpinia stimpsoni* Stebbing, 1908a: 75, pl. 11.

*Mandibulophoxus stimpsoni*: J. L. Barnard, 1957: 436–438, figs 3, 4.

*Records:* SCD 83C(11), SCD 94X(1), SCD 104S(4), SCD 120A(1), SCD 122C(16), SCD 128R(9), SCD 138B(18), SCD 141N(1), SCD 141S(2), SCD 148G(15), SCD 151F(1), SCD 173S(2), SCD 188B(12), SCD 194V(3), SCD 198W(1), SCD 199G(3), SCD 202A(1), SCD 204P(3), SCD 211S(6), SCD 216N(1), SCD 222K(1), SCD 225G(4), SCD 228A(3), SCD 320A(6), SCD 232H(2), SCD 235V(1), SCD 262P(1), SCD 267H(4), SCD 273G(1), SCD 285K(11), SCD 286G(1), SCD 287B(1), SCD 288H(1), SCD 300T(1), SCD 310J(10), SCD 315W(8), SCD 321S(1), SCD 326J(1), SCD 329T(8), SCD 338B(15), SCD 343S(3), SCD 345T(9), SCD 348X(15), SCD 349L(8), SCD 350K(14), SCD 353K(2), SCD 356Q(2), SCD 370L(5), SCD 376E(9), SCD 381N(9), SCD 383R(3), SCD 384Q(4), SCD 391G(14), SCD 392V(4); SST 1C(1), SST 5D(3), SST 9A(3), SST 16C(2), SST 19C(4), SST 24G(10), SST 29A(52), SST 32A(7), SST 34C(17), SST 52Q(2), SST 54A(2), SST 56Q(16), SST 60H(13), SST 61K(4), SST 62L(3), SST 63N(1), SST 65A(7), SST 67L(4), SST 68P(8), SST 70N(7), SST 73E(6), SST 74C(5), SST 76L(3), SST 77B(18), SST 78F(2); MB 66U(4), MB 71G(3); 33°S/28°E/86 m, 33°S/26°E/18–29 m (Stebbing 1910a).

*Distribution:* West and South Africa.

#### *Paraphoxus oculatus* Sars, 1891

*Paraphoxus oculatus*: J. L. Barnard, 1960: 240–243, pls 27, 28.

*Records:* SST 81D(2).

*Diagnosis:* Rostrum tapering evenly in front of the eyes, apically rounded; third pleonal epimeron not produced postero-distally, outer surface without a setal row; article 6 of gnathopods 1 and 2 widened; telson cleft almost to base.

*Distribution:* Circumboreal.

*Platyischnopus herdmani* Walker, 1904

*Platyischnopus capensis* K. H. Barnard, 1925: 338, pl. 34, figs 13, 14.

*Platyischnopus herdmani*: Rabindranath, 1971: 521, figs 1, 2.

**Records:** SCD 198J(2), SCD 211U(1), SCD 244D(3), SCD 338N(2), SCD 376H(1); SCD 381W(1); SST 29J(1), SST 45B(1), SST 56T(1), SST 59J(1), SST 77C(1).

**Distribution:** India, South Africa.

**Remarks:** The genus *Platyischnopus* has been moved from Haustoriidae to Phoxocephalidae as proposed by Bousfield (1970).

Family **Podoceridae***Laetmatophilus purus* Stebbing, 1888

*Laetmatophilus purus* Stebbing, 1888: 1198, pl. 132.

**Records:** SCD 95H(1), SCD 127P(2), SCD 198K(1), SCD 204S(2), SCD 211T(2), SCD 216B(1); SST 32J(1); Q 7K; 34°S/25°E/138 m (K. H. Barnard 1916).

**Distribution:** Endemic, Moçambique to South West Africa.

*Podocerus africanus* K. H. Barnard, 1916

*Podocerus africanus* K. H. Barnard, 1916: 278, pl. 28, figs 24, 25; 1937: 176, fig. 19.

**Records:** LIZ 40D(8); J 11D; L 503; SS 55N.

**Distribution:** Arabia, Natal to South West Africa.

*Podocerus brasiliensis* (Dana, 1853)

*Podocerus brasiliensis*: J. L. Barnard, 1971: 117, figs 58–60.

**Records:** L 484, L 485.

**Distribution:** Cosmopolitan in tropical and temperate seas.

*Podocerus cristatus* (Thompson, 1879)

*Podocerus cristatus*: J. L. Barnard, 1962: 67, fig. 31.

**Records:** SCD 95B(2), SCD 102F(3), SCD 122G(1), SCD 302R(2), SCD 308H(4), SCD 392W(2); KNY 166L.

**Distribution:** Cosmopolitan in tropical and warm temperate seas.

*Podocerus hystrix* Stebbing, 1910

*Podocerus hystrix* Stebbing, 1910b: 622, pl. 58.

**Records:** SST 11P(16).

**Diagnosis:** Head with very short triangular rostrum and a large forward-directed

medio-dorsal process; pereon segment 1 with two medio-dorsal carinae; remaining pereon segments and pleon segments 1 and 2 bearing successively larger backward-directed processes each flanked by a pair of smaller lateral processes; lateral margins of pereon segments produced over the coxae; coxa 1 acutely produced forwards, 2-4 acutely produced ventrally; palm of gnathopod 2 defined by two spines, that of male with a small tooth near finger hinge.

*Distribution:* This is the first record of this species from Africa. It was previously known only from Australia.

*Podocerus inconspicuus* (Stebbing, 1888)

*Podocerus palinuri* K. H. Barnard, 1916: 277, pl. 28, fig. 23.

*Podocerus inconspicuus*: Nagata, 1965: 322, fig. 43.

*Records:* SCD 24H(1), SCD 55J(1), SCD 135A(2), SCD 146C(2), SCD 172W(2), SCD 208J(1), SCD 249T(1), SCD 283G(2), SCD 302S(3), SCD 345V(5), SCD 353E(6), SCD 356R(1); SST 24H(1), SST 29H(2); MB 16E(2), MB 57C(1), MB 87E(3); SS 55M; 34°S/22°E/215 m, 34°S/23°E/84 m (K. H. Barnard 1916).

*Distribution:* Indo-Pacific, west coast of South Africa.

*Podocerus multispinis* K. H. Barnard, 1925

*Podocerus multispinis* K. H. Barnard, 1925: 367, pl. 34, fig. 18.

*Records:* SCD 208F(2), SCD 353D(1); 34°S/25°E/128 m (K. H. Barnard 1916).

*Distribution:* Endemic, Natal to Saldanha Bay.

Family **Sebidae**

*Seba saundersi* Stebbing, 1875

*Paravalettia chelata* K. H. Barnard, 1916: 112, pl. 26, figs 2, 3.

*Seba saundersii*: K. H. Barnard, 1957: 7, fig. 4.

*Records:* 33°S/28°E/? (K. H. Barnard 1957).

*Diagnosis:* Eyes absent; gnathopod 1 subchelate in juvenile, becoming fully chelate in adult, article 6 with a notch on posterior margin bearing 4-5 plumose setae, dactyl closely fitting palm; gnathopod 2 smaller than 1, slender, chelate; article 4 of pereopods 3 and 4 acutely produced half length of article 5, that of pereopod 5 strongly expanded; telson entire, triangular, apically bluntly rounded.

*Distribution:* Cosmopolitan.

Family **Stegocephalidae**

*Parandania boeckii* (Stebbing, 1888)

*Parandania boeckii*: J. L. Barnard, 1961: 57, fig. 27.

*Records:* 33°S/28°E/900 m (K. H. Barnard 1916).

*Diagnosis:* Accessory flagellum of antenna 1 uni-articulate, almost as long as article 1 of primary flagellum, which exceeds half length of peduncle; mandibular incisor untoothed; palp of maxilla 1 uni-articulate; article 2 of pereopod 3 slender, that of pereopods 4 and 5 broad; telson oval, entire.

*Distribution:* Cosmopolitan, pelagic.

*Stegocephaloides australis* K. H. Barnard, 1916

*Stegocephaloides australis* K. H. Barnard, 1916: 129, pl. 28, fig. 29.

*Records:* SCD 181K(1); SST 1F(1), SST 9E(1), SST 11U(11), SST 19F(1), SST 24P(1).

*Diagnosis:* Head almost hidden under the tumid first pereon segment; eyes absent; coxae forming a continuous shield, 4 deeper than its pereon segment, the posterior and distal margins differentiated by a rounded angle; article 2 of pereopod 5 distally produced into an evenly rounded process reaching to apex of article 4; hind margin of article 2 of pereopod 5 feebly serrate; third pleonal epimeron postero-distally rounded.

*Distribution:* Endemic to South Africa.

Family **Stenothoidae**

*Parametopa grandimana* n. sp.

Fig. 18

*Description of male* (3 mm): Head slightly shorter than two pereon segments, eyes of moderate size, colourless; antenna 1 exceeding length of body, articles 1 and 2 subequal, each more than twice length of article 3, flagellum of 25 elongate articles, twice as long as peduncle, accessory flagellum absent; antenna 2 half as long as 1, flagellum 9-articulate; mandible (fig. 18B) with palp represented by a single seta, cutting edge strongly toothed, spine row of 10 spines, the first three pectinate, molar absent; palp of maxilla 1 (Fig. 18C) uni-articulate, tipped by seven spines, outer plate terminating in four strong serrate spines and two small simple ones, inner plate bearing single apical seta; outer plate of maxilla 2 (Fig. 18D) with four apical spines, inner plate bearing three setae; inner plates of maxilliped (Fig. 18E) small, each bearing a single spine, outer plate vestigial, palp 4-articulate.

Coxa 1 small, covered by coxa 2, which is produced anteriorly; coxa 3 rounded, bearing numerous chitinous (? stridulation) ridges along distal and posterior margins; coxa 4 very large, not posteriorly excavate; remaining coxae oval; gnathopod 1 small, subchelate, article 4 distally produced into a setose lobe, article 5 as long as 6, palm oblique, undefined; gnathopod 2 extremely large (Fig. 18A), antero-distal corners of articles 2 and 3 moderately lobed, article 5 cup-shaped, 6 tapering distally from defining angle; palm greatly exceed-

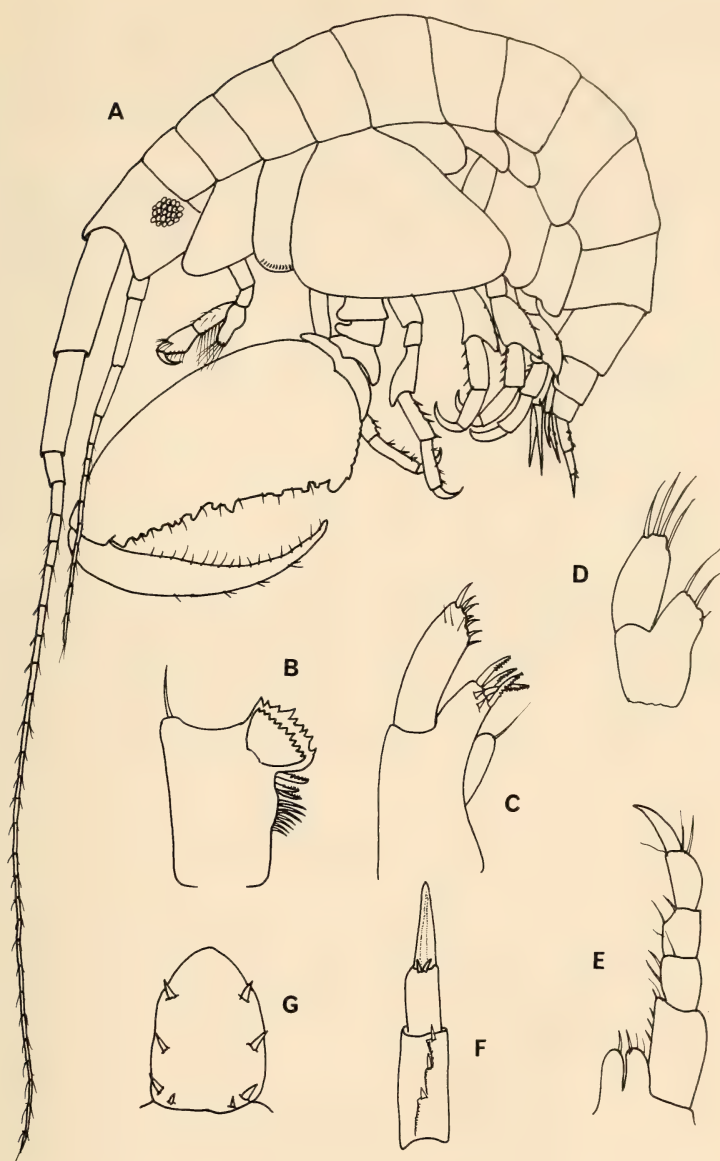


Fig. 18. *Parametopa grandimana* n. sp.  
 Male, 3 mm: A—lateral aspect; B—mandible; C—maxilla 1; D—maxilla 2;  
 E—maxilliped; F—uropod 3; G—telson.

ing hind margin, bearing about 12 small irregularly spaced teeth and scattered small setae, defined by a larger tooth, dactyl powerful, equal to palm, inner margin sparsely setose; pereopods 1–3 slender, article 2 linear, article 4 widening slightly distally; article 2 of pereopods 4 and 5 oval, article 4 expanded distally and postero-distally produced into an acute lobe bearing strong spines on both margins.

Pleonal epimera 1 and 2 rounded, 3 rounded-quadrate; peduncle of uropod 1 with two rows of 7–8 dorsal spines, rami equal, lanceolate, bearing one or two dorsal spines; uropod 2 half length of 1, outer ramus 70% length of inner, each with a single dorsal spine; peduncle of uropod 3 (Fig. 18F) with three dorsal spines, the single ramus consisting of two subequal articles, the first bearing two apical spines, the second dorsally pectinate; telson (Fig. 18G) entire, longer than broad, each lateral margin bearing one minute spine and three powerful ones.

*Holotype*: SAM A13216, male, 3 mm.

*Type locality*: SST 5F, 35°22'S/22°31'E, 20 June 1972, depth 200 m, substrate coarse khaki sand.

*Relationships*: Of the three existing species in this genus *P. grandimana* n. sp. can be distinguished from *P. alaskensis* (Holmes) and *P. kervillei* Chevreux by the shape and size of gnathopod 2. I have been unable to obtain a description of the third species—*P. sarniensis* (Norman)—but Chevreux & Fage, writing after Norman, state that all members of *Parametopa* known at that time have subequal antennae, a feature not consistent with the present species.

*Material*: SST 5F(10), SST 16K(6).

#### *Proboloides rotunda* (Stebbing, 1917)

*Metopa rotundus* Stebbing, 1917: 39, pl. 7A.

*Records*: SCD 122K(1), SCD 135L(2), SCD 159V(18), SCD 181Z(1), SCD 188F(2), SCD 198U(2), SCD 199E(2), SCD 204Y(1), SCD 211Z(1), SCD 222P(2), SCD 225N(1), SCD 345Y(3); 34°S/23°E/42 m (Stebbing 1917).

*Distribution*: Endemic to South Africa.

#### *Stenothoe dolichopous* K. H. Barnard, 1916

*Stenothoe dolichopous* K. H. Barnard, 1916: 153, pl. 26, figs 15–17.

*Records*: 32°S/28°E/176 m (K. H. Barnard 1916).

*Diagnosis*: Gnathopod 1 very elongate, articles 3 and 4 subequal, 5 equal to 2, 6 linear, shorter than 5, palm oblique, defined by two spines; articles 2 and 3 of gnathopod 2 antero-distally produced into rounded lobes, article 6 twice as long as broad, palm occupying whole posterior margin, a conical tooth at its centre, a second nearer the hinge and a large crenulate triangular process just

before the hinge; third pleonal epimeron with a minute postero-distal tooth; ramus of uropod 3 shorter than peduncle, second joint half length of first; telson oval, each lateral margin bearing three spines.

*Distribution*: The above record is the only one to date.

*Stenothoe gallensis* Walker, 1904

*Stenothoe gallensis*: J. L. Barnard, 1971: 120, figs 62, 63.

*Records*: KNY 166J, KNY 176E.

*Distribution*: Cosmopolitan.

*Stenothoe valida* Dana, 1853

*Stenothoe valida*: Sivaprakasam, 1967a: 373, fig. 2a-b. J. L. Barnard, 1970b: 250, fig. 165.

*Records*: SST 24N(1).

*Distribution*: Cosmopolitan in tropical and temperate seas.

Family **Synopiidae**

*Tiron australis* Stebbing, 1908

*Tiron australis* Stebbing, 1908a: 79, pl. 38.

*Records*: SCD 110T(1), SCD 131Z(2), SCD 173U(1), SCD 370T(1), SCD 373M(5); SST 34P(1), SST 37A(1), SST 37Y(1); 33°S/28°E/86 m (Stebbing 1908a).

*Distribution*: Endemic to Indian Ocean coast of South Africa.

Superfamily **Talitroidea**

(Revised J. L. Barnard 1972b)

Family **Ceinidae**

*Afrochiltonia capensis* (K. H. Barnard, 1916)

*Chiltonia capensis* K. H. Barnard, 1916: 244, pl. 27, figs 38-40.

*Afrochiltonia capensis*: K. H. Barnard, 1955: 93.

*Records*: HAM 11C(C); HAV 5C(1), HAV 7L(P), HAV 18L(C); KNY 112C; STJ 24E(A), STJ 27F(C).

*Distribution*: Endemic, Natal to Saldanha Bay.

Family **Phliantidae**

*Palinnotus natalensis* K. H. Barnard, 1940

*Palinnotus natalensis* K. H. Barnard, 1940: 445, fig. 22.

*Records*: J 11E; Y 12J.

*Distribution*: India, east coast of South Africa.

*Plioplateia triquetra* K. H. Barnard, 1916

*Plioplateia triquetra* K. H. Barnard, 1916: 156, pl. 26, figs 18–24.

*Records:* SCD 302Y(2), SCD 310F(1); 33°S/27°E/91 m (K. H. Barnard 1916).

*Diagnosis:* Body as broad as deep, rostrum upturned, bearing a tooth on each side; antenna 1 half length of pereon; pereon segments 1–7 and pleon segments 1 and 2 each surmounted by a dorsal carina, that of pereon segment 1 deeply bifid; each pereonite also bearing a flat horizontal backwardly-directed lateral projection; maxilla 1 with palp; maxilliped bearing 4-articulate palp; gnathopods subchelate; uropod 3 represented by an oval lobe-like peduncle, rami absent.

*Distribution:* Endemic to south coast of South Africa.

*Temnophlias capensis* K. H. Barnard, 1916

*Temnophlias capensis* K. H. Barnard, 1916: 158, pl. 26, figs 25–35.

*Records:* S 54G; SS 55B; Still Bay (K. H. Barnard 1940).

*Distribution:* Endemic, Still Bay to South West Africa.

Family **Talitridae**Subfamily **Hyalinae***Allorchestes inquirendus* K. H. Barnard, 1940

*Allorchestes inquirendus* K. H. Barnard, 1940: 477, fig. 34b–c.

*Records:* MB 37L(1); Port Elizabeth (K. H. Barnard 1940).

*Distribution:* Endemic, Port Elizabeth to South West Africa.

*Hyale grandicornis* Kröyer, 1845

*Hyale grandicornis*: K. H. Barnard, 1955: 93, fig. 46. Hurley, 1957: 904–909, figs 1–23.

*Records:* KNY 166A, KNY 171C; J 11G; Q 7G; L 71; X 8A; K 8J; Y 12E; T 3G; KN 2H; SS 55F; Port Elizabeth, East London (K. H. Barnard 1916); Still Bay, Plettenberg Bay (K. H. Barnard 1940).

*Distribution:* Indo-Pacific, South Atlantic.

*Hyale macrodactyla* Stebbing, 1899

*Hyale macrodactyla*: Ledoyer, 1972: 273, fig. 77.

*Records:* H 9B.

*Distribution:* India, Madagascar, southern Africa.

*Hyale maroubrae* Stebbing, 1899

*Hyale maroubrae*: Hurley, 1957: 913, figs 51–71.

*Records*: KNY 166H(1), KNY 171D.

*Diagnosis*: Antenna 1 extending 30% along length of flagellum of antenna 2; coxae rectangular; palm of gnathopod 1 male transverse, defining angle ridged; article 2 of gnathopod 2 male not distally lobed, palm extending whole length of article 6, bearing two rows each of eight seta-tipped spines and defined by a shallow pocket into which the dactyl closes; article 6 of pereopods 1–5 postero-distally bearing a stout striated seta-tipped spine and a flattened fusiform striated spine.

*Distribution*: Indo-Pacific.

*Hyale saldanha* Chilton, 1912

*Hyale saldanha* Chilton, 1912: 509, pl. 2, figs 24–29.

*Records*: MB 40N(2); L 38Z; E 232; AR 1Q(8).

*Distribution*: Endemic, East London to South West Africa.

Subfamily **Talitrinae***Orchestia ancheidos* (K. H. Barnard, 1916)

*Talorchestia ancheidos* K. H. Barnard, 1916: 221, pl. 27, figs 35, 36.

*Orchestia ancheidos*: Ruffo, 1958: 43, figs 3, 4.

*Records*: BMR 21E(6); HAM 4B(A); HAV 13M(1); STJ 5B(C), STJ 29F; Keurbooms River, Plettenberg Bay (K. H. Barnard 1940).

*Distribution*: Madagascar, Moçambique, South Africa.

*Orchestia rectipalma* K. H. Barnard, 1940

*Parorchestia tenuis* (non Dana, 1853): K. H. Barnard, 1916: 226.

*Parorchestia rectipalma* K. H. Barnard, 1940: 473, fig. 32.

*Records*: HAM 11B(C), HAM 13C(C); HAV 7J(P), HAV 18E(C), HAV 20A(C); KNY 103A, KNY 175E, KNY 179A(C), KNY 181A(A), KNY 266C(5), KNY 272A(18), KNY 273B(60), KNY 274H(4), KNY 285A(C), KNY 286B(C), KNY 294A(47); BRE 13D(3), BRE 34K(4), BRE 55E(A), BRE 56F(1), BRE 57G(4), BRE 71N, BRE 123D(8); STJ 7Q, STJ 15N(C); Keurbooms River, Plettenberg Bay (K. H. Barnard 1940).

*Distribution*: Endemic, Natal to South West Africa, especially in estuaries.

*Talorchestia australis* K. H. Barnard, 1916

*Talorchestia australis* K. H. Barnard, 1916: 220, pl. 27, figs 33, 34; 1940, fig. 30.

*Records*: GBR 13D(1).

*Distribution*: Endemic, South West Africa to Moçambique.

*Talorchestia capensis* (Dana, 1853)

*Talorchestia capensis*: K. H. Barnard, 1916: 216; 1940: 470, fig. 28.

*Records*: KNY 43A, KNY 114A(C), KNY 166B, KNY 187A; BRE 5A(6), BRE 18A(10); STJ 5A(C); Keurbooms River, Plettenberg Bay (K. H. Barnard 1940).

*Diagnosis*: Male gnathopod 1 with article 5 not lobed distally, article 6 weakly lobed; palm of gnathopod 2 male oblique, spinose, medially with a semicircular incision which in adults occupies almost the entire palm, dactyl with a deep semicircular concavity near its base; pleonal epimera postero-distally rounded, their posterior margins distinctly crenulate.

*Distribution*: Mediterranean, Atlantic, south coast of South Africa.

*Talorchestia inaequalipes* K. H. Barnard, 1951

*Talorchestia inaequalipes* K. H. Barnard, 1951: 705, fig. 5a-b.

*Records*: KNY 113A(C), KNY 162B.

*Diagnosis*: Eyes dorsally separated by more than their diameter; coxa 2 not lobed posteriorly; articles 5 and 6 of gnathopod 1 male apically lobed; palm of gnathopod 2 male oblique, spinose, defined by a small pelucid lobe; article 2 of pereopod 5 weakly serrate posteriorly, articles 4 and 5 strongly expanded in male, oar-like; hind margins of pleonal epimera distinctly serrate, postero-distal corners quadrate.

*Distribution*: Endemic, Knysna to Saldanha Bay.

## Suborder CAPRELLIDEA

## Family Aeginellidae

*Eupariambus fallax* K. H. Barnard, 1957

*Eupariambus fallax* K. H. Barnard, 1957: 9, fig. 6.

*Records*: SST 29D(2), SST 45E(3).

*Diagnosis*: Antenna 1 without swimming setae; mandible with molar and 3-articulate palp; branchiae on segments 3 and 4; palm of gnathopod 2 with a large acute tooth at its centre; pereopods 1 and 2 absent, pereopod 3 reduced to a 2-articulate rudiment terminating in four or five setae; abdomen of male with one pair of rudimentary appendages.

*Distribution*: Endemic, Still Bay to west coast of South Africa.

*Metaprotella macrodactylos* Stebbing, 1910

*Metaprotella macrodactylos* Stebbing, 1910a: 469, pl. 48A.

*Records*: 33°S/26°E/18-29 m (Stebbing 1910a).

*Distribution*: Endemic, Natal to Port Elizabeth.

*Orthoprotella mayeri* K. H. Barnard, 1916

*Orthoprotella mayeri* K. H. Barnard, 1916: 284; 1925: 372.

*Records:* SCD 3U(2), SCD 60M(3), SCD 122J(2), SCD 160L(2), SCD 181G(11), SCD 204N(4), SCD 319Y(3); SST 11T(7), SST 18W(1), SST 24B(4), SST 37Q(2); 33°S/27°E/100 m, 34°S/22°E/86 m (K. H. Barnard 1916); Algoa Bay 184 m, 33°S/28°E/180 m, 34°S/25°E/133 m, 34°S/23°E/148 m (K. H. Barnard 1925).

*Distribution:* Indo-Pacific.

*Pseudaeginella tristanensis* (Stebbing, 1888)

*Pseudaeginella tristanensis*: Stephensen, 1949: 52, fig. 23.

*Records:* SCD 160K(1), SCD 181Z; L 455; East London (K. H. Barnard 1940).

*Distribution:* Tristan da Cunha, South Africa.

Family **Caprellidae***Caprella cicur* Mayer, 1903

*Caprella cicur* Mayer, 1903: 75, 97, pl. 4, figs 5-7, pl. 8, figs 3-5.

*Records:* SCD 202H(1), SCD 248L(1); J 11C; LLL 6C; Port Elizabeth 24-27 m, 33°S/26°E/18-29 m (Stebbing 1910a).

*Distribution:* Endemic, Natal to west coast of South Africa.

*Caprella danilevskii* Czerniavski, 1868

*Caprella danilevskii*: McCain, 1968: 22-25, figs 10, 11.

*Records:* J 11C; L 500; K 8H; E 236.

*Distribution:* Widespread, pantropical.

*Caprella equilibra* Say, 1818

*Caprella equilibra*: McCain, 1968: 25-30, figs 12, 13.

*Records:* SCD 179K(1), SCD 189T(6), SCD 192W(65), SCD 198G(1), SCD 244E(9), SCD 282U(4), SCD 283F(1), SCD 312N(35), SCD 329Y(1), SCD 338J(5), SCD 353L(1), SCD 379H(6); MB 37K(6), MB 54W(1); KNY 28B; Port Elizabeth (K. H. Barnard 1916).

*Distribution:* Cosmopolitan.

*Caprella natalensis* Mayer, 1903

*Caprella penantis* (non Leach, 1814): Stebbing, 1910a: 465.

*Caprella natalensis*: Laubitz, 1972: 47, pl. 9, figs F, G, pl. 10, figs F-K.

*Records:* Port Elizabeth 24-27 m (Stebbing 1910a).

*Distribution:* Southern Africa, Tristan da Cunha, Pacific coast of North America.

*Caprella penantis* Leach, 1814

*Caprella penantis*: McCain, 1968: 33–40, figs 15, 16.

*Records:* MB 41J(1); D 272; L 335, L 455B; Y 12D.

*Distribution:* Cosmopolitan in tropical and temperate seas.

*Caprella scaura* Templeton, 1836

*Caprella scaura*: McCain, 1968: 40–44, figs 17, 18.

*Records:* MB 50U(5).

*Distribution:* Cosmopolitan.

*Caprella triodous* Stebbing, 1910

*Caprella triodous* Stebbing, 1910a: 467, pl. 48B.

*Records:* SCD 141W(1); 33°S/25°E/24–27 m (Stebbing 1910a).

*Diagnosis:* Head without rostrum; flagellum of antenna 1 12-articulate; antenna 2 shorter than peduncle of antenna 1; no spine between bases of second gnathopods; article 6 of gnathopod 2 elongate, distally widening, palm divided into three very large teeth; pereopods 3 and 4 each with a pair of serrate-ended clasping spines.

*Distribution:* Endemic to south coast of South Africa.

*Hemiaegina minuta* Mayer, 1890

*Hemiaegina minuta*: McCain, 1968: 61–64, figs 29, 30.

*Records:* SCD 179L(1); L 61A.

*Distribution:* Cosmopolitan in tropical and temperate seas.

Family **Phtisicidae**

*Caprellina longicollis* (Nicolet, 1849)

*Caprellina longicollis*: McCain, 1969: 289, fig. 2.

*Records:* L 455A; 33°S/26°E/18–29 m, Port Elizabeth 24–27 m (Stebbing 1910a).

*Distribution:* Mediterranean, southern oceans.

*Caprellina spiniger* K. H. Barnard, 1916

*Caprellina spiniger* K. H. Barnard, 1916: 282, pl. 28, fig. 35.

*Records:* MB 50V(1).

*Distribution:* Endemic, Mossel Bay to Lüderitz.

*Chaka leoni* Griffiths, 1974

*Chaka leoni* Griffiths 1974b: 258, figs 7, 8.

*Records:* SCD 59E(1).

*Distribution:* Endemic to east and south coasts of South Africa.

*Phtisica marina* Slabber, 1769

*Phtisica marina*: K. H. Barnard, 1916: 283. McCain, 1968: 91-97, fig. 46.

*Records:* SCD 24P(1), SCD 135H(1), SCD 159T(4), SCD 160J(2), SCD 181H(7), SCD 188E(3), SCD 192X(10), SCD 216J(1), SCD 232G(4), SCD 345Z(2), SCD 347C(1); SST 11S(13), SST 29C(1); 34°S/23°E/84 m (K. H. Barnard 1916).

*Distribution:* Mediterranean, Black Sea, Atlantic, southern Africa.

## SUMMARY

An account is presented of the known gammaridean and caprellid amphipod fauna of the Cape Province of South Africa east of 20°E (Cape Agulhas). The vast majority of the records has been derived from the extensive estuarine, littoral and benthic collections amassed by the University of Cape Town Ecological Survey, and with these have been incorporated all previous records from the literature. The collections total in excess of 12 000 individuals and from these 173 species have been recognized. Fourteen of the species and two genera are presented here as new to science. These are *Dikwa acrania* n. gen., n. sp. (Acanthonotozomatidae); *Ampelisca acris* n. sp.; *Colomastix keiskama* n. sp.; *Concholestes armatus* n. sp.; *Neomicrodeutopus nyala* n. sp.; *Cunicus profundus* n. gen., n. sp. (Haustoriidae); *Urothoe platypoda* n. sp.; *Parajassa chikoa* n. sp.; *Liljeborgia palmata* n. sp.; *Listriella sinuosa* n. sp.; *Lepidepecreum twalae* n. sp.; *Uristes sulcus* n. sp.; *Westwoodilla manta* n. sp. and *Parametopa grandimana* n. sp. In addition two species, *Stomacontion prionoplax* Monod and *Podocerus hystrix* Stebbing, are recorded for the first time from southern Africa. A fusion of the Lysianassid genera *Stomacontion* and *Acontistoma* is advocated.

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